4. Alignment and Troubleshooting

4.1. Alignment and Adjustments

This chapter describes the main functions for service, such as the product maintenance method, the test output related to maintenance and repair, Jam removing method, and so on. It includes the contents of user guide.

4.1.1. Control panel

> ⚠️ **NOTE**
>
> • This control panel may differ from your machine depending on its model. There are various types of control panels.
>
> • Some features and optional goods may not be available depending on model or country.
>
> • Some buttons may not work depending on the mode (copy, fax, or scan).

Type A (CLX-419xN/ CLX-419xFN)
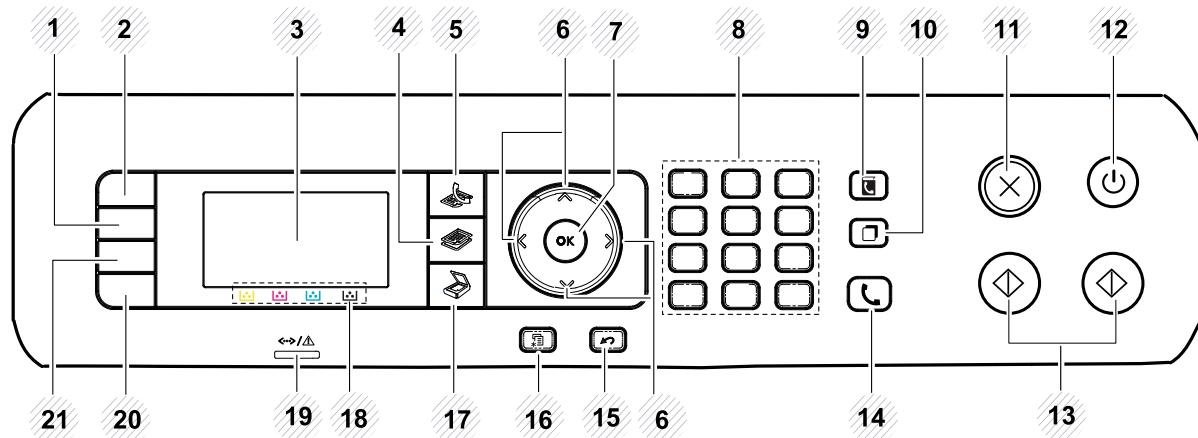
1	Darkness	Adjusts the brightness level to make a copy for easier reading, when the original contains faint markings and dark images.
2	ID Copy*	Allows you to copy both sides of an ID card like a driver's license on a single side of paper.
	Scan to**	Sends scanned data.
3	Display Screen	Shows the current status and prompts during an operation.
4	Fax*	Switches to Fax mode.
5	Copy*	Switches to Copy mode.
6	Arrows	Scroll through the options available in the selected menu, and increase or decrease values.
7	OK	Confirms the selection on the screen.
8	Numeric Keypad	Dials a number or enters alphanumeric characters.
9	Address Book	Allows you to store frequently used fax numbers or search for stored fax numbers.
10	Redial/Pause*	Redials the recently sent fax number or received caller ID in ready mode, or inserts a pause(-) into a fax number in edit mode.

11	Stop/Clear		Stops current operation.
12	Power/Wake up		Turns the power on or off, or wakes up the machine from the power save mode. If you need to turn the machine off, press this button for more than three seconds.
13	Start	Color	Begins a printing job in color mode.
		Black	Begins a printing job in black and white mode.
14	On Hook Dial*		When you press this button, you can hear a dial tone. Then enter a fax number. It is similar to making a call using speaker phone.
15	Back		Sends you back to the upper menu level.
16	Menu		Enters Menu mode and scrolls through the available menus.
17	Scan*		Switches to Scan mode.
18	Toner Colors		Show the status of each toner cartridge. If the toner cartridge is low or needs to be replaced, the Status LED turns red and the display shows the message. However, the arrow mark shows which color toner is of concern or may be installed with a new cartridge.
19	Status LED		Indicates the status of your machine.
20	Eco		Turn into eco mode to reduce toner consumption and paper usage when pc-printing and copying only.
21	Direct USB		Allows you to directly print files stored on a USB memory device when it is inserted into the USB port on the front of your machine.

* CLX-419xFN series only.

** CLX-419xN series only.

Type B (CLX-419xFW)
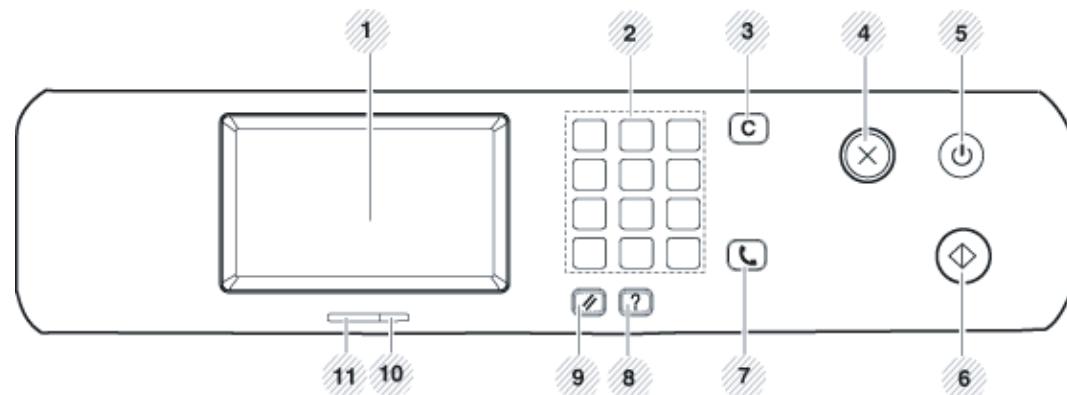
1	Display screen	Shows the current status and displays prompts during an operation.
2	Numeric keypad	Dials a number or enters alphanumeric characters.
3	Clear	Deletes characters in the edit area.
4	Stop/Clear	Stops an operations at any time.
5	Power/Wake up	Turns the power on or off, or wakes up the machine from the power save mode. If you need to turn the machine off, press this button for more than three seconds.
6	Start	Starts a job in black or color mode.
7	On Hook Dial	When you press this button, you can hear a dial tone. Then enter a fax number. It is similar to making a call using speaker phone
8	Help	Gives detailed information about this machine's menus or status.

9	Reset	Resets the current machine's setup.
10	Wireless LED	Shows the current status of the wireless network connection.
11	Status LED	Indicates the status of your machine.

4.1.2.   Understanding the status LED

The color of the LED indicates the machine's current status.

> ⚠️ **NOTE**
>
> • Some LEDs may not be available depending on model or country.
>
> • To resolve the error, look at the error message and its instructions from the troubleshooting part.
>
> • You also can resolve the error with the guideline from the computers's Samsung Printing Status window.

LED	Status		Description
Status	Off		The machine is off-line.
	Green	Blinking	When the backlight blinks, the machine is receiving or printing data.
		On	• The machine is on-line and can be used.
	Red	Blinking	• A minor error has occurred and the machine is waiting for the error to be cleared. Check the display message. When the problem is cleared, the machine resumes. • Small amount of toner is left in the cartridge. The estimated cartridge life* of toner is close. Prepare a new cartridge for replacement. You may temporarily increase the printing quality by redistributing the toner.
		On	• A toner cartridge has almost reached its estimated cartridge life*. It is recommended to replace the toner cartridge. • The cover is opened. Close the cover. • There is no paper in the tray. Load paper in the tray. • The machine has stopped due to a major error. • A paper jam has occurred.
Wireless**	Blue	Blinking	The machine is connecting to a wireless network.
		On	The machine is connected to a wireless network.
		Off	The machine is disconnected from a wireless network.
Power/Wake up	Blue	On	The machine is in power save mode.
		Off	The machine is in ready mode or machine's power is off.
Eco	Green	On	Eco mode is on.
		Off	Eco mode is off.

* Estimated cartridge life means the expected or estimated toner cartridge life, which indicates the average capacity of print-outs and is designed pursuant to ISO/IEC 19798. The number of pages may be affected by operating environment, percentage of image area, printing interval, graphics, media and media size. Some amount of toner may remain in the cartridge even when red LED is on and the printer stops printing.

** Some LEDs may not be available depending on model or country.

4.1.3. JAM removal

4.1.3.1. Clearing original document jams

⚠️ **NOTE**

This troubleshooting may not be available depending on model or optional goods

Original paper jam in front of scanner

1) Open the document feeder cover.
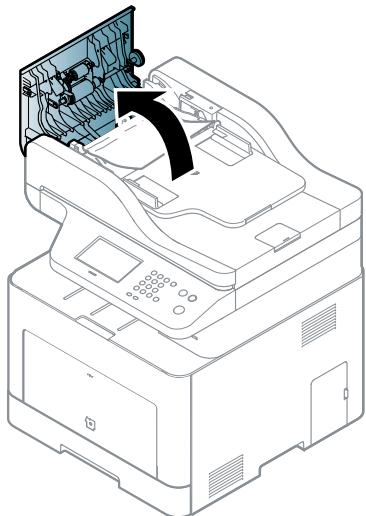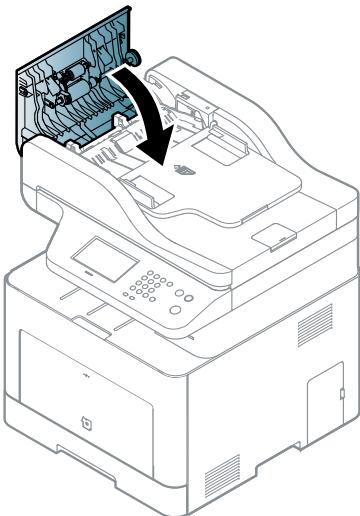
2) Gently remove the jammed paper from the document feeder.


3) Close the document feeder cover.
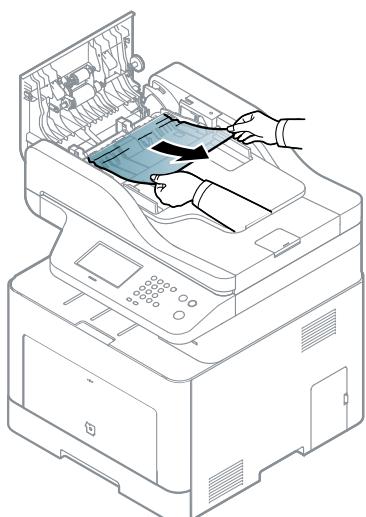
Original paper jam inside of scanner

1) Open the document feeder cover.
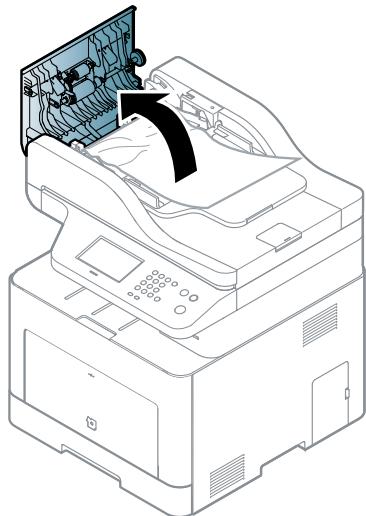
2) Gently remove the jammed paper from the document feeder.
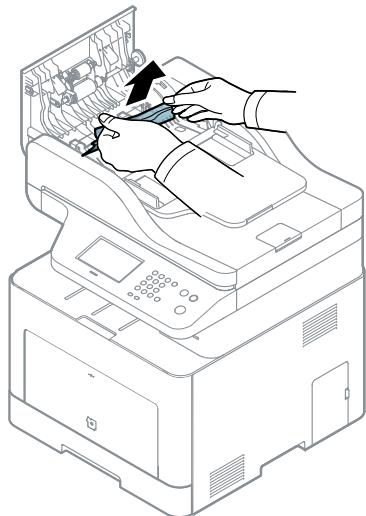
3) Close the document feeder cover.
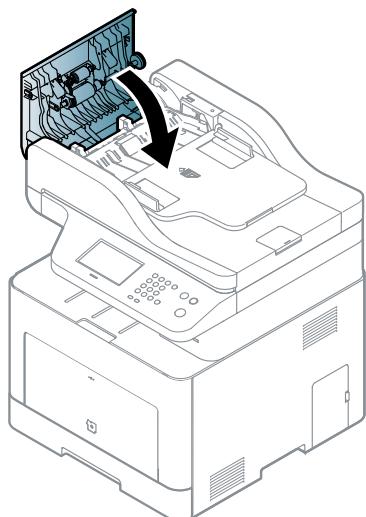
Original paper jam in exit area of scanner

1) Remove any remaining pages from the document feeder.

2) Open the Stacker up.
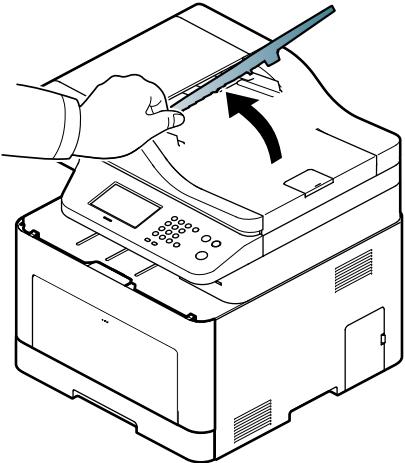
3) Gently remove the jammed paper from the document feeder.
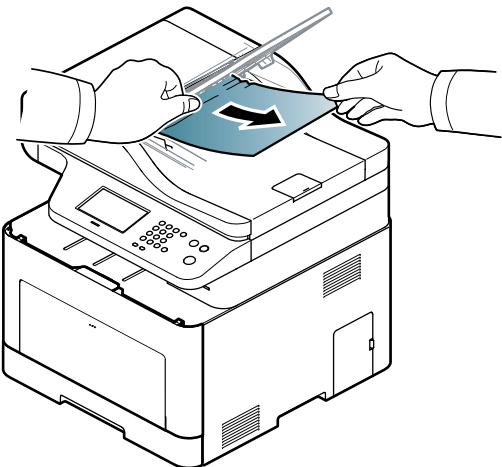
4) Close the Stacker.
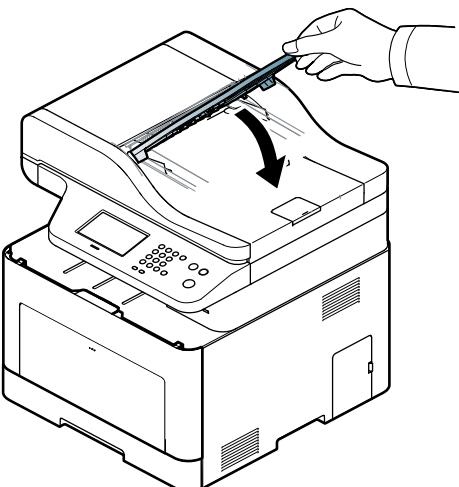
4.1.3.2.   Clearing paper jams

> ⚠️ **NOTE**
>
> To avoid tearing the paper, pull the jammed paper out slowly and gently.

In tray1

1) Take off the cassette.
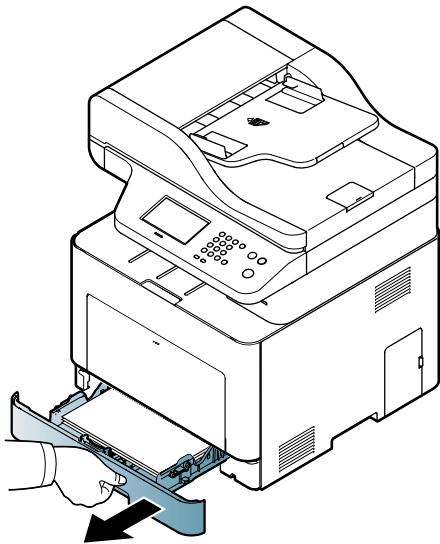
2) Remove the jammed paper by gently pulling it straight out.
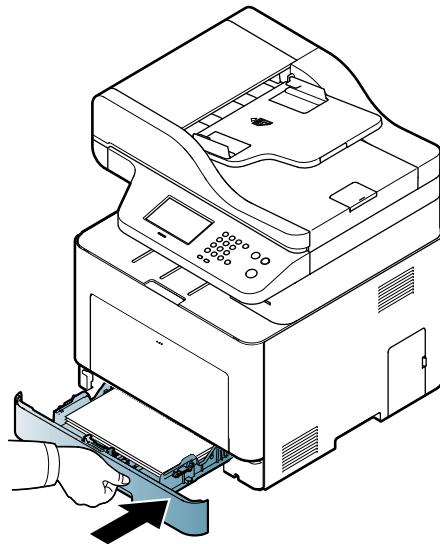
3) Reinstall the cassette.
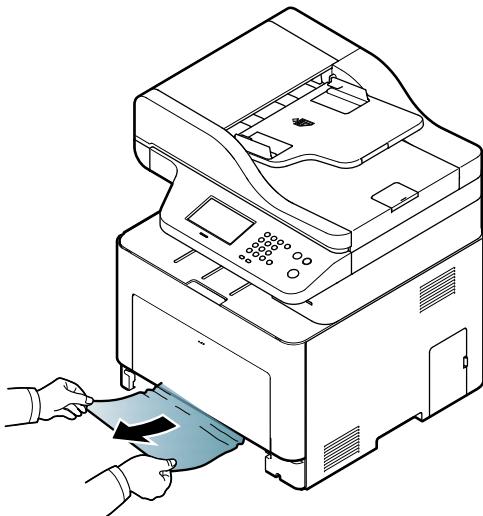
In the manual feeder/multi-purpose tray

1) Take off the cassette.
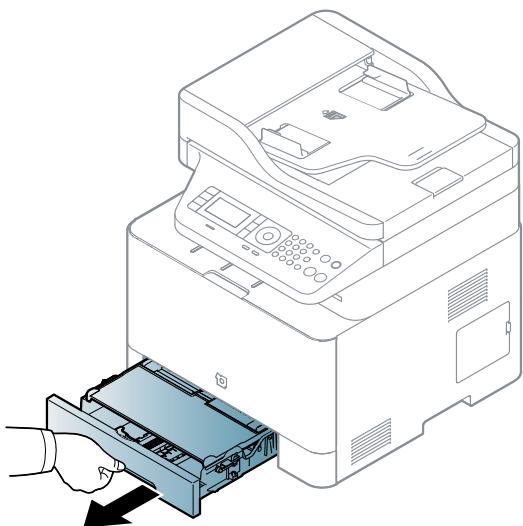
2) Remove the jammed paper by gently pulling it straight out.

3) Reinstall the cassette.
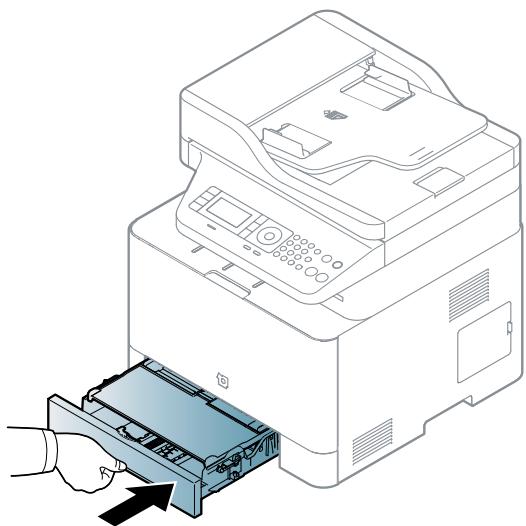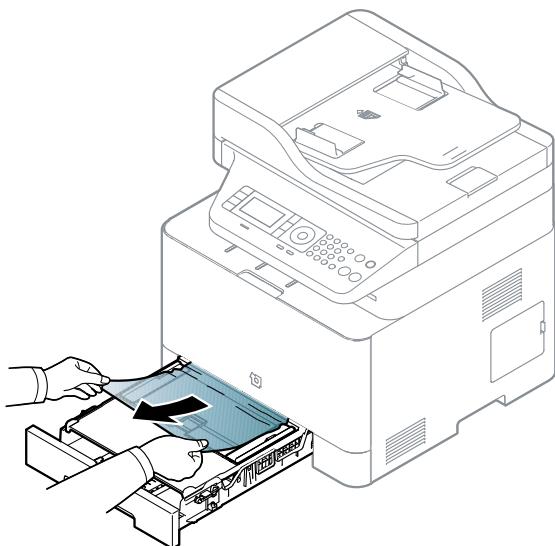
Inside the machine

⚠️ **CAUTION**

The fuser area is hot. Take care when removing paper from the machine.

1) Open the rear cover.
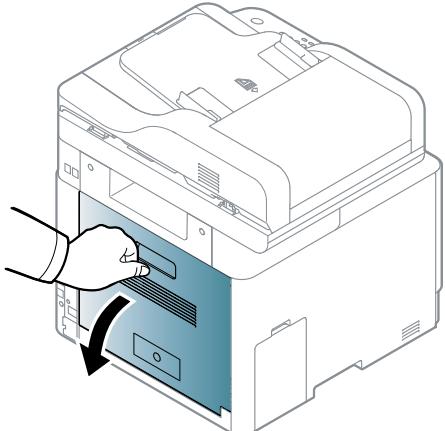
2) Remove the jammed paper by gently pulling it straight out.
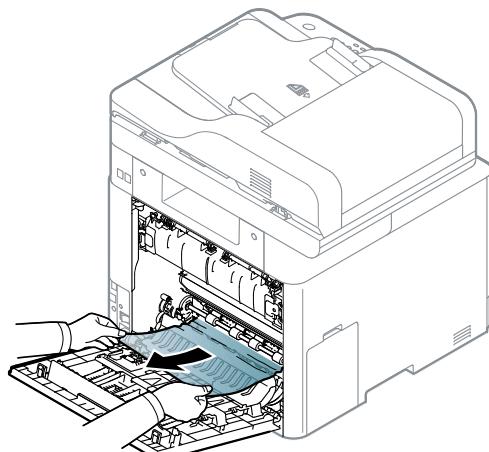
3) Close the rear cover.
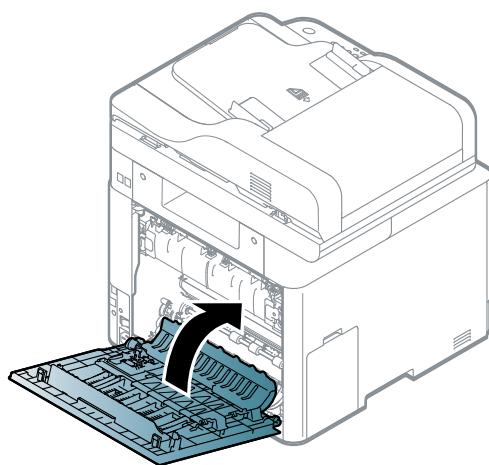
In the exit area

1) Remove the jammed paper by gently pulling it straight out.
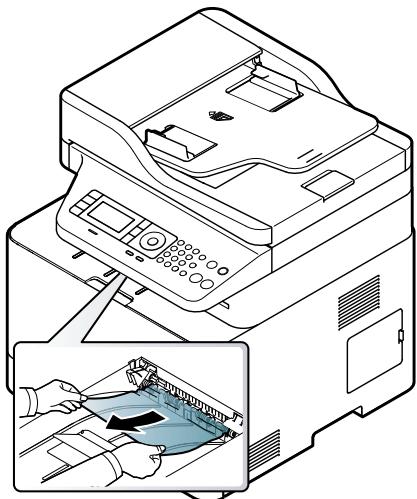
If you do not see the paper in this area, stop and go to next step:

2) Open the rear cover.
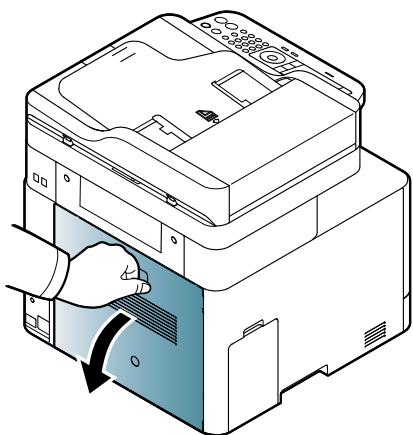
3) Open the fuser jam cover.
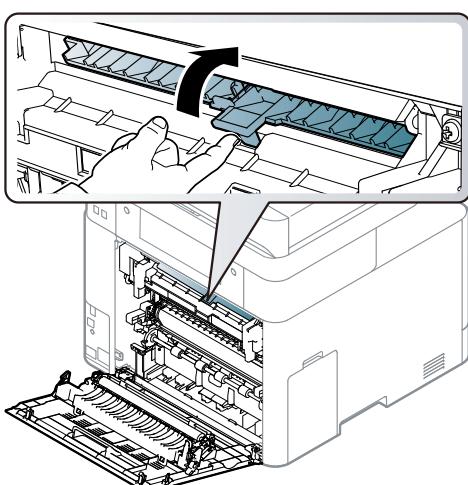
4) Remove the jammed paper by gently pulling it straight out.
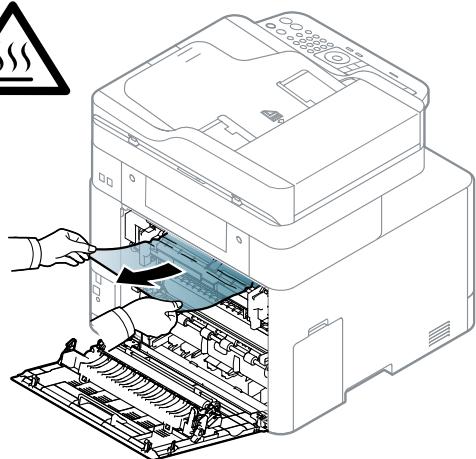
5) Close the fuser jam cover.
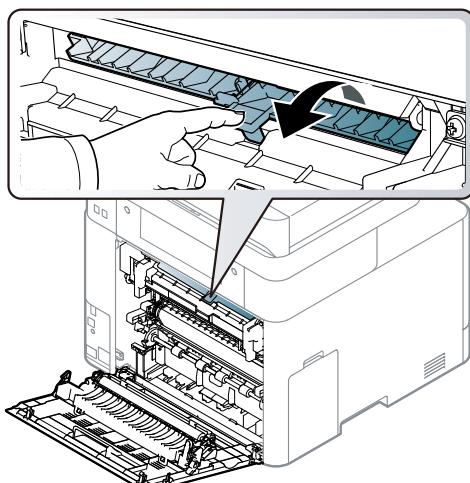
6) Close the rear cover.
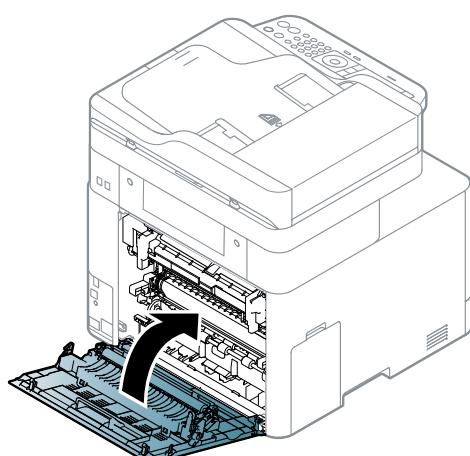
4.1.4. Useful menu item for service

1) Monitoring the supplies life

If you experience frequent paper jams or printing problems, check the number of pages the machine has printed or scanned. Replace the corresponding parts, if necessary.

> ⚠ **NOTE**
>
> • Accessing menus may differ from model to model
>
> • It may be necessary to press OK to navigate to lower-level menus for some models.

1) Select "**Menu > System Setup > Maintenance > Supplies Life**" on the control panel.

2) Select the option you want and press OK.

   • Supplies Info.: Prints the supply information page.

   • Total: Displays the total number of pages printed.

   • ADF Scan: Displays the number of pages printed by using the document feeder.

   • Platen Scan: Displays the number of pages scanned by using scanner glass.

   • Transfer Belt: Displays the number of pages by using transfer belt.

   • Fuser: Displays the number of pages by using fuser.

   • Tray1 Roller: Displays the number of pages by using tray1 roller.

3) Press "**Stop/Clear**" button to return to ready mode.

2) Altitude adjustment

Print quality is affected by atmospheric pressure, which is determined by the height of the machine above sea level. The following information will guide you on how to set your machine for the best print quality.

Before you set the altitude value, determine the altitude where you are.
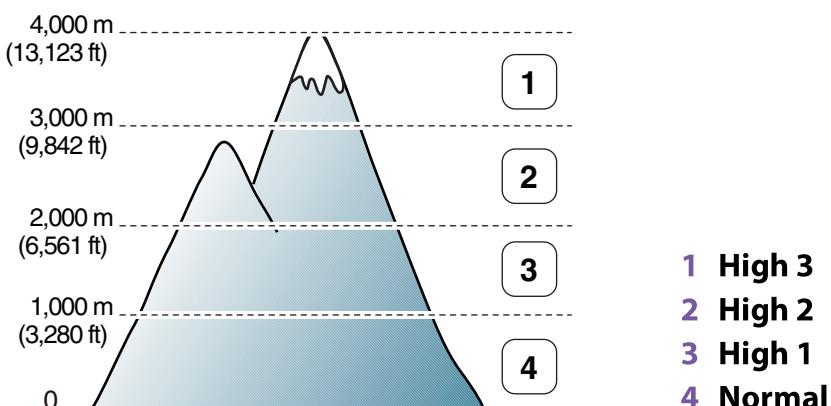
You can set the altitude value from Device Settings in Samsung Easy Printer Manager program.

- For Windows and Macintosh users, you set from **Samsung Easy Printer Manager > Switch to advanced mode > Device Settings.**

⚠ **NOTE**

- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service.

- You can also set the altitude in System Setup option on the machine's display.
  - Menu > System Setup > Machine Setup > Altitude Adjustment (CLX-4195N / 4195FN)
  - Setup > Altitude Adjustment (CLX-4195FW)

3) Checking the firmware version

This menu shows the product's firmware version.

Select the menu item.

- Press "**Setup > Machine Setup > Next > Initial Setup > Firmware Version**" on the touch screen. (CLX-4195FW)

4) Auto Color Reg.

The machine virtually prints certain patterned image to calibrate the color printing position. This feature enhances the colored image sharper and clearer, which means the machine prints the colored image on the paper more like the one in the monitor.

⚠ **NOTE**

If you have moved the machine, it is strongly recommended to operate this menu manually.

Select the menu item.

- Press "**Setup > Machine Setup > Auto CR**" on the touch screen. (CLX-4195N/ 4195FN)

- Or press "**Setup > Machine Setup > Next > Initial Setup > Auto CR**" on the touch screen. (CLX-4195FW)

5) Printing a machine report

This product provides several printable reports for maintenance purposes.

These reports can be used to aid the diagnosis of print quality problems.

To print the report :

- Press "**Menu > System Setup > Report**" on the control panel. (CLX-4195N/ 4195FN)

- Or press "**Setup > Machine Setup> Next > Reports**" on the touch screen. (CLX-4195FW)

4.1.5. Periodic Defective Image

If an image defects appears at regular intervals on the printed-paper, it is due to a faulty or damaged roller. Refer to the table below and check the condition of the appropriate roller.

	Roller	Period	Period	Phenomenon	Defective part
1	Pressure Roller	20 mm	62.8 mm	Background	Fuser Unit
2	Heat Roller	24.3 mm	76.3 mm	Black spot and image ghost	
3	Charging Roller	8.5 mm	26.7 mm	Black Spot and line and periodic band	Toner Cartridge
4	OPC Drum	24 mm	75.4 mm	White and Black Spots	
5	Developing Roller	12 mm	37.7 mm	White spot, Horizontal black band	
6	Supply Roller	11.3 mm	35.5 mm	Periodic Band by little difference of density	
7	Transfer Roller	8 mm	25.1 mm	Ghost, Damaged image by abnormal transfer	Transfer roller

4.1.6. Useful management tools

4.1.6.1. Using Samsung Easy Printer Manager (Windows and Macintosh only)

> ⚠️ **NOTE**
>
> - This feature may not be available depending on model or optional goods.
>
> - Available for Windows or Macintosh OS users only.
>
> - For Windows, Internet Explorer 6.0 or higher is the minimum requirement for Samsung Easy Printer Manager.

Samsung Easy Printer Manager is an application that combines Samsung machine settings into one location. Samsung Easy Printer Manager combines device settings as well as printing environments, settings/actions and launching. All of these features provide a gateway to conveniently use your Samsung machine. Samsung Easy Printer Manager provides two different user interfaces for the user to choose from: the basic user interface and the advanced user interface. Switching between the two interfaces is easy: just click a button.

Understanding Samsung Easy Printer Manager

To open the program:

- For Windows, Select Start > Programs or All Programs > Samsung Printers > Samsung Easy Printer Manager > Samsung Easy Printer Manager.

- For Macintosh, Open the Applications folder > Samsung folder > Samsung Easy Printer Manager.

The Samsung Easy Printer Manager interface is comprised of various basic sections as described in the table that follows:

> ⚠️ **NOTE**
>
> The screenshot may differ depending on operating system you are using.

No	Area	Description
1	Printer List	The printer list displays the installed printer icons on your computer.
2	Printer Information	This area gives you general information about your machine. You can check information, such as the machine's model name, IP address (or Port name), and machine status. ⚠ **NOTE** Troubleshooting button: This button opens Troubleshooting Guide when an error occurs. You can directly open the necessary section in the user's guide.
3	Application Information	Includes links for changing to the advanced settings, preference, help, and about.
4	Quick links	Displays Quick links to machine specific functions. This section also includes links to applications in the advanced settings.
5	Contents Area	Displays information about the selected machine, remaining toner level, and paper. The information will vary based on the machine selected. Some machines do not have this feature.
6	Order Supplies	Click on the Order button from the supply ordering window. You can order replacement toner cartridge(s) from online.

Advanced settings user interface overview

The advanced user interface is intended to be used by the person responsible for managing the network and machines.

- **Device Settings**

  You can configure various machine settings such as machine setup, paper, layout, emulation, network, and print information.

- **Scan to PC Settings**

  This menu includes settings to create or delete scan to PC profiles.

  - **Scan Activation** : Determines whether or not scanning is enabled on the device.
  - **Profile** : Displays the scanning profiles saved on the selected device.
  - **Basic tab** : Contains settings related general scan and device settings.
  - **Image tab** : Contains settings related to image altering.

- **Fax to PC settings**

  This menu includes settings related to the basic fax functionality of the selected device.

  - **Disable** : If Disable is On, incoming faxes will not be received on this device.
  - **Enable Fax Receiving from Device** : Enables faxing on the device and allow more options to be set.

- **Alert Settings**

  This is menu includes settings related to error alerting.

  - **Printer Alert** : Provides settings related to when alerts will be received.
  - **Email Alert** : Provides options relating to receiving alerts via email.
  - **History Alert** : Provides a history of device and toner related alerts.

- **Job Accounting**

  Provides querying of quota information of the specified job accounting user. This quota information can be created and applied to devices by job accounting software such as SyncThru™ or CounThru™ admin software.

4.1.6.2. Using Samsung Printer Status (Windows only)

The Samsung Printer Status is a program that monitors and informs you of the machine status.

> ⚠️ **NOTE**
>
> - The Samsung Printer Status window and its contents shown in this user's guide may differ depending on the machine or operating system in use.
>
> - Check the operating system(s) that are compatible with your machine.

Samsung Printer Status overview

If an error occurs while operating, you can check the error from the Samsung Printer Status. Samsung Printer Status is installed automatically when you install the machine software.

You can also launch Samsung Printer Status manually. Go to the **Printing Preferences** , click the **Basic** tab > **Printer Status** button.

These icons appear on the Windows task bar:

Icon	Mean	Description
	Normal	The machine is in ready mode and experiencing no errors or warnings.
	Warning	The machine is in a state where a soft error has occurred. For example, a toner low status, which may lead to toner empty status.
	Error	The machine has at least one hard error, such as out of paper, fuser error, etc. Machine does not have ability to come to ready without customer intervention.
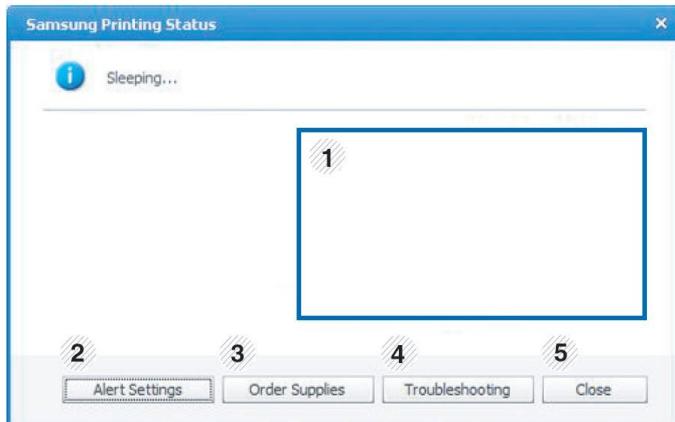
1	Toner Level	You can view the level of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. Some machines do not have this feature.
2	Alert Settings	Select the settings you want from the options window.
3	Order Supplies	You can order replacement toner cartridge(s) from online.
4	Troubleshooting	You can directly open the troubleshooting section in the user's guide.
5	Close	Close the window.

4.1.6.3. Using SyncThru Web Service (SWS)

SWS is an embedded web server in the machine. This web server informs you of machine configuration, version, status and allows you to customize the machine's settings. You can contact this server via wired and wireless network using your web browser in the remote place.

Connecting preparations

- Wired or Wireless Network connection is established.

- Browser (Ex> Internet Explorer) Program on your PC network connected

SWS overview

SyncThru Web Service (SWS)

- accepts HTTP request via port 80 as normal web servers.

- provides interface to users information of networked printers and allow to configure the setting of printers.

- is able to provide more complicated options than Local UI for printer configuration.
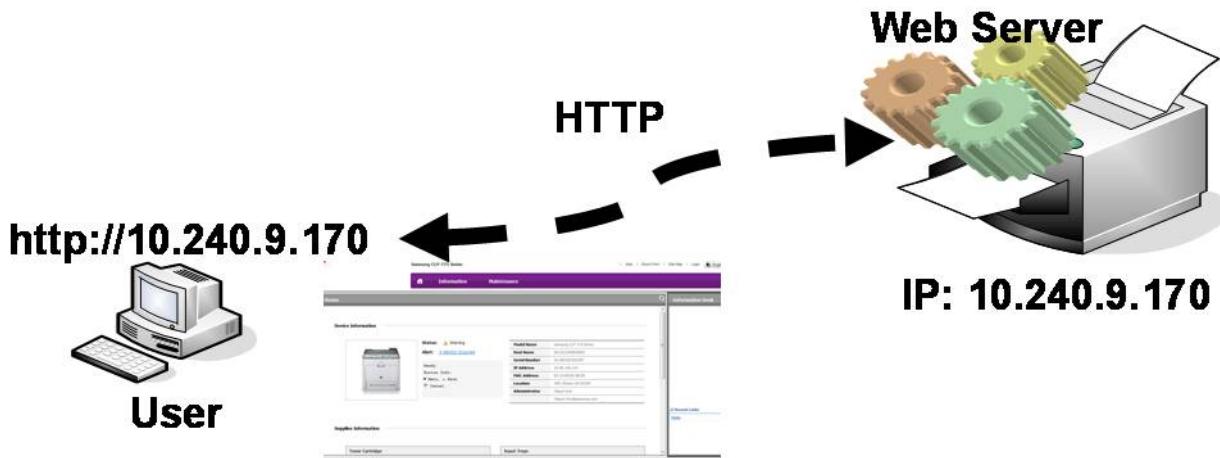
Connection Procedure

1) Open the Web-browser and input IP address of machine. Click "Login".

2) Log-in Admin Mode. (ID: admin, PW: sec00000)

3) Select pages to check the configuration and customize the settings.

⚠️ **CAUTION**

Please, change SWS Default ID and Password for system security in case of your first connection.

> ⚠️ **NOTE**
>
> If the machine supports 'Direct Print', you can enable this function using the SWS menu. The default configuration is 'Disabled' for your security.
>
> Firstly, you have to login to SWS.
>
> 1) Click 'Direct Print Configuration' in the pop up windows when clicking 'Direct Print'.
>
> 2) In the 'Services' Menu, check 'Direct Print'.
>
>
>
> Or,
>
> 1) Click 'System Security' in the 'Security' menu.
>
> 2) Select 'Feature Management' in the left frame.
>
> 3) In the 'Services' Menu, check 'Direct Print'.
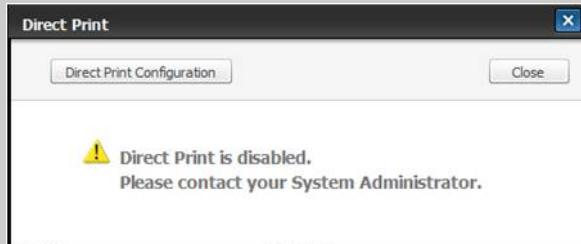
4.1.7.   Updating Firmware

This chapter includes instructions for updating the printer firmware. You can update the printer firmware by using one of the following methods :

- Update the firmware by using the USB port.

- Update the firmware by using the Network.

4.1.7.1.   Update the firmware by using the USB port

Upgrading preparations

- usblist2.exe : Tool which sends firmware data to printer.

- Firmware file to update.

Upgrade Procedure

1) Turn the machine off.

2) Connect USB cable to printer.

3) Turn the machine on. Check if the printer is the ready status.

4) Drag the firmware file and Drop down on the usblist2.exe.
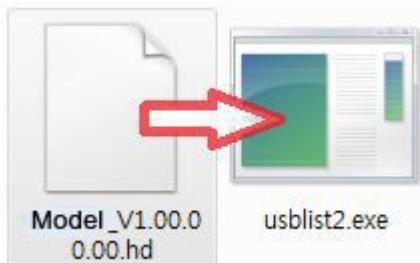
And then firmware update will be started automatically.

5) When upgrading is completed, machine is automatically re-booting.

4.1.7.2.   Update the firmware by using the network

Upgrading preparations

- Wired or Wireless Network connection is established.

- Firmware file to update

Upgrade Procedure

1)   Open the Web-browser and input IP address of machine. Click "Login".
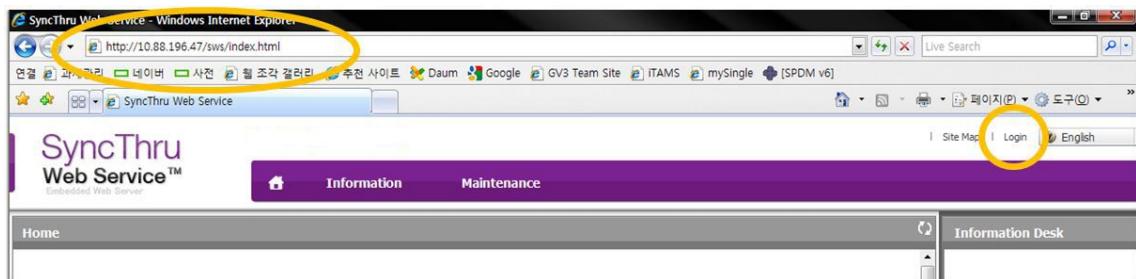
2)   Log-in Admin Mode. (ID: admin, PW: sec00000)
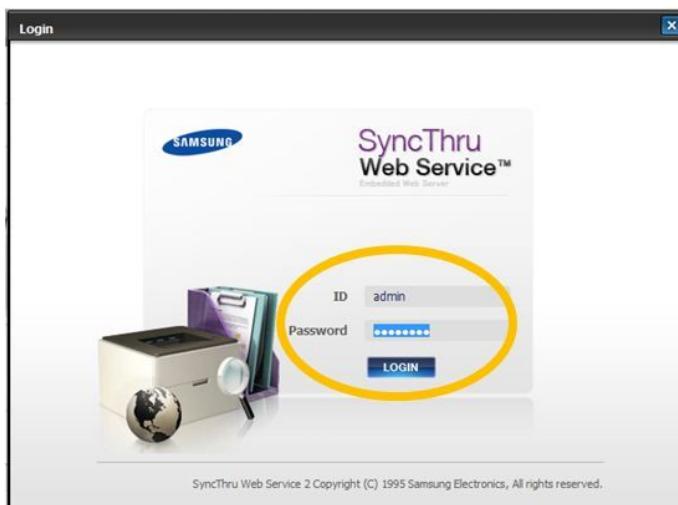
3)   Select Maintenance menu and click "upgrade wizard"
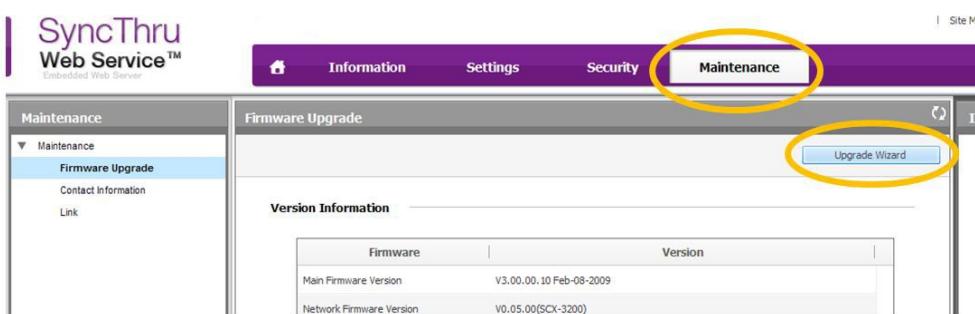
4) Select firmware file using "browser" button and press next button.

Firmware Upgrade Wizard

Select a file

Firmware File

File: C: [_____]   Browse

«Previous   Next »   Cancel
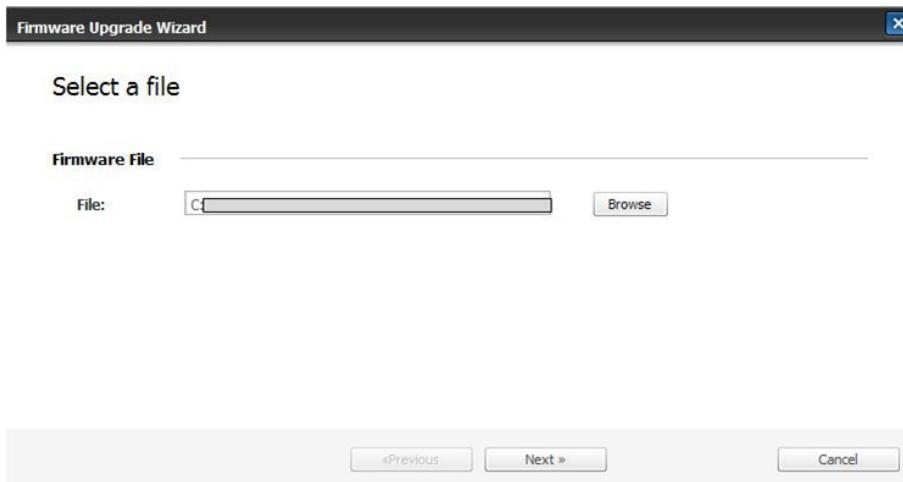
5) SyncThru will check verify firmware file and compare version and press next button.

Firmware Upgrade Wizard

Verifying

Verifying firmware. Please wait.

«Previous   Next »   Cancel

Firmware Upgrade Wizard

Check Firmware Version

New Firmware Versions

Firmware	New Version	Current Version
Main Firmware	V3.00.	V3.00.

To process firmware upgrade, click [Next] button below

«Previous   Next »   Cancel
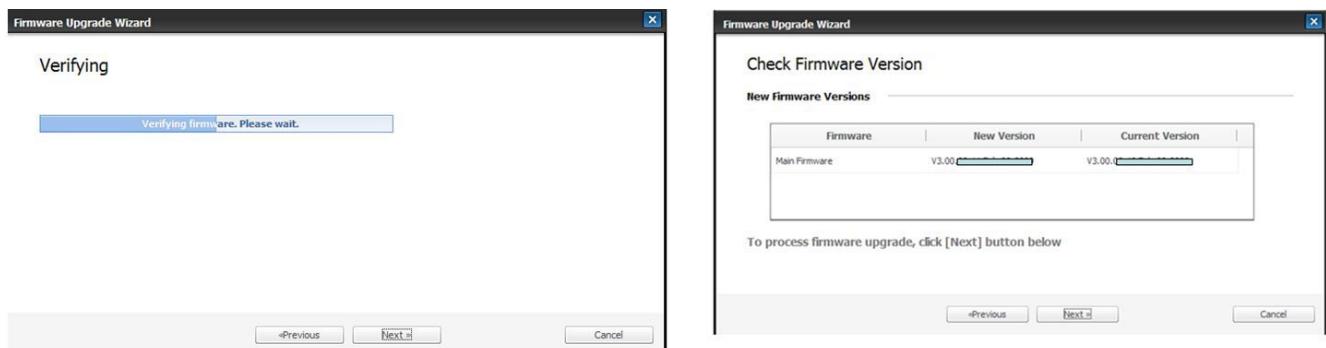
6) Machine starts upgrading. SyncThru will return home page after upgrading is completed.

Firmware Upgrade Wizard

Uploading

Uploading firmware. Please wait.

«Previous   Next »   Cancel
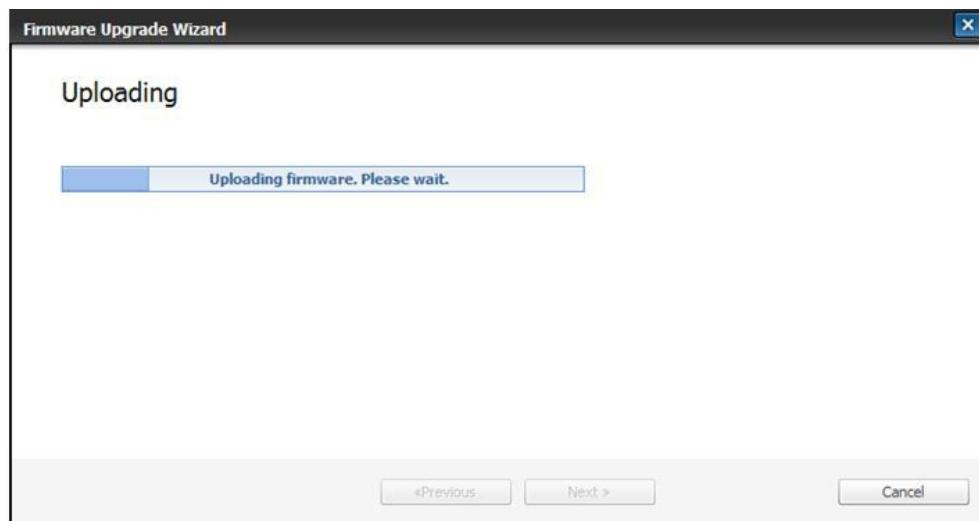
4.1.8. Tech Mode (Diagnostic Mode)

In service (tech) mode, the technician can check the machine and perform various test to isolate the cause of a malfunction. While in Tech mode, the machine still performs all normal operations.

4.1.8.1. Tech Mode (CLX-4195N_4195FN)

a) Entering Tech Mode

1) Press "Menu > # > 1 > 9 > 3 > 4 " on the control panel continuously.

2) Press Menu.

3) Select "Tech Mode".

b) Tech Mode Menu

⚠ **NOTE**

Some menu items may not appear on the display depending on the options or models.

Depth 1	Depth 2	Depth 3	Depth 4
Data Setup	Clear All Mem.		
	Toner Low Level	[1-30]% : 10	
	Clear Counts	Enter Passcode [????]	Fuser
			Pickup Roller
			Torque Limiter
			Transfer Roller
	Engine Footer	On	
		Off *	
	Dial Tone	On	
		Off	
Machine Test	Switch Test		
	Test Param Set		
	Dram Test		
	Rom Test		
	Pattern Test		
	Shading Test	Shading&Print	
		Print	
	EDC Mode	Copier	Nvm Read Write
			Test Routines
		Fax	Nvm Read Write
			Test Routines
	Restart Machine		

Depth 1	Depth 2	Depth 3	Depth 4
Report	Fax Protocol Dump		
	Menu Map		
	Supplies Info		
	Configuration		
	Error Info		
	Usage Counter		
	Auto Color Reg.		
	Auto Toning		

c) Data Setup

- Clear All Memory

  The function resets the system to factory default settings. This function is used to reset the system to the initial value when the product is functioning abnormally . All the values are returned to the default values, and all the information, which was set by the user, will be erased.

  > ⚠️ **NOTE**
  >
  > Always perform a memory clear after replacing the main board. Otherwise, the system may not operate properly.

- Toner Low Level

  The function is to set up the time to inform toner low status. This function can provide user convenience for replacing the toner cartridge.

- Clear Count

  This function resets the count value you select.

- Engine Footer

  This function is for monitoring of the engine status. If you perform this function, at printing, the setting value for engine is shown on the bottom of the printed page.

d) Machine Test

- **Switch Test**

  Use this feature to test all keys on the operation control panel. The result is displayed on the LCD window each time you press a key.

- **Dram Test**

  Use this feature to test the machine's DRAM. The result appears in the LCD display.

- **Shading Test**

  The function is to get the optimum scan quality by the specific character of the CIS (Contact Image Sensor). If the copy image quality is poor, perform this function to check the condition CIS unit.

- **EDC Mode**
  - Copier > NVM Read/Write : This menu changes a configuration value for engine firmware.

Depth 1	Depth 2
105-Charger	0030-MHV DC Black
	0031-MHV DC Color

Depth 1	Depth 2
106-Developer	0000-Deve DC Yellow
	0010-Deve DC Magenta
	0020-Deve DC Cyan
	0030-Deve DC Black
	0121-Yellow Blade DC
	0122-Magenta Blade DC
	0123-Cyan Blade DC
	0124-Black Blade DC
107-Transfer	0030-STransfer1 High Voltage
	0080-Transfer2 High Voltage
109-Fixing	0010-Run Temperature offset
110-LSU	0040-LD Power Yellow
	0050-LD Power Magenta
	0060-LD Power Cyan
	0070-LD Power Black

- Copier > Test Routines : This menu performs test routines for the engine.

Depth 1	Depth 2
100-Motor	0051-YMCK OPC Motor
	0052-YMCK OPC Motor Rdy
	0072-YMCK DEV Motor
	0073-YMCK DEV Motor Rdy
	0260-SMPS Fan
	0340-Feed Mot
	0360-ITB Tension Release Motor
101-Clutch	0010-Tray1 Pickup
	0050-Registration
	0171-Front cover open
	0190-OutBin Full
	0240-DR Nip Release
	0250-Knock Up Plate
	0251-Fuser Gap Enable
102-Paper Handling	0010-Tray1 Empty
	0360-Regi Sens
	0370-Exit Sens
	0680-ITB Tension Home Sensor
105-Charger	0030-K MHV Bias
	0031-Color MHV Bias

106-Developer	0000-Y Dev Bias
	0010-M Dev Bias
	0020-C Dev Bias
	0030-K Dev Bias
	0040-Black OPC Home Sensor
	0050-Color OPC Home Sensor
	0060-DR Nip Home Sensor
	0070-Yellow Blade DC
	0080-Magenta Blade DC
	0090-Cyan Blade DC
	0100-Black Blade DC
107-Transfer	0071-YMCK THV Bias
	0072-YMCK THV Bias R
	0073-YMCK THV- Bias
	0080-THV +
	0090-THV + R
	0160-Erase Lamp
109-Fixing	0000-Temp A
	0011-LSU Temperature
	0012-Inner Temperature
	0013-Outer Temperature
	0014-Huminity
	0020-Fuser Fan Rdy
	0040-Fuser Fan Run
110-LSU	0000-LSU Motor1 Rdy
	0060-LSU Motor1 Run
	0080-LD Power1
	0090-LD Power2
	0100-LD Power3
	0110-LD Power4
111-Toner	0080-ID Sensor
	0090-ID Sensor Chk

- Fax > NVM Read/Write : This menu changes a configuration value for fax firmware.

0200-Pause Dial Time	0420-DTMF Timing
0210-Dial Pul. M/B	0500-Dial Mode
0220-AutoDial P-Time	0520-Error Rate
0300-Ring On Time	0530-Dial tone detect
0310-Ring Off Time	0540-Loop cur. det.
0320-Ring Det. Freq	0550-Busy sngl det.
0400-DTMF H-Freq Lv	0700-LineMon. Setting
0410-DTMF L-Freq Lv	0800-Modem Speed

| 0810-Fax Trans. Lv |
| 0830-AutoDialTimeout |

- Fax > Test Routines : This menu performs test routines for the fax.

0012-Sngl T 1100 L1	0044-V.29 9600 L1
0014-Sngl T 1650 L1	0045-V.17 7200 L1
0015-Sngl T 1850 L1	0046-V.17 9600 L1
0016-Sngl T 2100 L1	0047-V.17 12000 L1
0020-DTMF # Line1	0048-V.17 14400 L1
0021-DTMF * Line1	0049-V.34 2400 L1
0022-DTMF 0 Line1	0050-V.34 4800 L1
0023-DTMF 1 Line1	0051-V.34 7200 L1
0024-DTMF 2 Line1	0052-V.34 9600 L1
0025-DTMF 3 Line1	0053-V.34 12000 L1
0026-DTMF 4 Line1	0054-V.34 14400 L1
0027-DTMF 5 Line1	0055-V.34 16800 L1
0028-DTMF 6 Line1	0056-V.34 19200 L1
0029-DTMF 7 Line1	0057-V.34 21600 L1
0030-DTMF 8 Line1	0058-V.34 24000 L1
0031-DTMF 9 Line1	0059-V.34 26400 L1
0040-V.21 300 Ln1	0060-V.34 28800 L1
0041-V.27ter2400L1	0061-V.34 31200 L1
0042-V.27ter4800L1	0062-V.34 33600 L1
0043-V.29 7200 L1	

e) Report

- **Supplies Info**

  Supplies Information Report shows toner cartridge information such as toner remaining, toner capacity, toner product date etc.

- **Configuration**

  Configuration report shows the status of the user-selectable options. You may print this list to confirm your changes after changing settings. This page provides useful information for service.

- **Error Info**

  Error Information Report shows error records.

4.1.8.2.   Tech Mode (CLX-4195FW)

a) Entering Tech Mode

To enter the service mode, press 1,2,3 number keys simultaneously. When the password dialog box appears, enter "1934" and press the "OK" button.

b) Tech Mode Menu

Depth 1	Depth 2	Depth 3	Depth 4
Information	General	Machine Serial Number	
		Network IP Address	
	Software Version	Set Version	
		Main Controller	
		User Interface	
		Network Controller	
	Report	Fax Protocol Dump	
		Configuration	
		Supplies Information	
		Usage Counter	
		Error Information	
		Auto Color Registration	
		Job Duty	
		Auto Toning History	
Test Routine	Copier	NVM Read/Write	
		Test Routine	
	Fax	NVM Read/Write	
		Test Routine	
		Protocol Report	
	Others	Shading Test	Shade and Print Report
			Print last shade report
		Memory Clear	Country
		Toner Low Level	[1-30]% : 10
		Counter Reset	Fuser
			Pickup Roller
			Retard Roller
			Torque Limiter
			Transfer Roller
			Scan
		Engine Footer	Off
			On

c) Information

- **General**

  This menu displays the machine's serial number, assigned IP address.

- **Software Version**

  This menu displays all the version of the software installed in the system in detail.

- **Report**

  You can print the various report that is stored in system.

d) Machine Test

- **Copier**
  - NVM Read/Write : This menu changes a configuration value for engine firmware.

Depth 1	Depth 2
105-0030	MHV DC Black
105-0031	MHV DC Color
106-0000	Deve DC Yellow
106-0010	Deve DC Magenta
106-0020	Deve DC Cyan
106-0030	Deve DC Black
106-0121	Yellow Blade DC
106-0122	Magenta Blade DC
106-0123	Cyan Blade DC
106-0124	Black Blade DC
107-0030	Transfer1 High Voltage(THV) Black
107-0080	Transfer2 High Voltage(THV2)
109-0010	Run Temperature offset
110-0040	LD Power Yellow
110-0050	LD Power Magenta
110-0060	LD Power Cyan
110-0070	LD Power Black

  - Test Routines : This menu performs test routines for the engine.

Depth 1	Depth 2
100-0051	OPC Motor
100-0052	OPC Motor Ready
100-0072	DEV Motor
100-0073	DEV Motor Ready
100-0260	SMPS Fan Run
100-0340	Feed Motor
100-0360	ITB Tension Release Motor
101-0010	T1 Pick-Up Clutch
101-0050	Registration Clutch

101-0171	Cover Open Sensor
101-0190	Out-Bin Full Sensor
101-0240	DR Nip Release
101-0250	Knock Up Plate
101-0251	FuserGapEnable
102-0010	T1 Paper Empty Sensor
102-0360	Regi. Sensor
102-0370	Exit Sensor
102-0680	ITB Tension Home Sensor
105-0030	Black MHV Bias
105-0031	Color MHV Bias
106-0000	Yellow Dev Bias
106-0010	Magenta Dev Bias
106-0020	Cyan Dev Bias
106-0030	Black Dev Bias
106-0040	Black OPC Home Sensor
106-0050	Color OPC Home Sensor
106-0060	DR Nip Home Sensor
106-0070	Yellow Blade DC
106-0080	Magenta Blade DC
106-0090	Cyan Blade DC
106-0100	Black Blade DC
107-0071	THV Bias
107-0072	THV Bias Read
107-0073	THV(-) Bias
107-0080	iTHV(+) Bias
107-0090	iTHV Bias Read
107-0160	Erase Lamp1
109-0000	Fuser Temperature A
109-0011	LSU Temperature
109-0012	Inner Temperature
109-0013	Outer Temperature
109-0014	Huminity
109-0020	Fuser Fan Run Ready
109-0040	Fuser Fan Run
110-0000	LSU Motor1 Run Ready
110-0060	LSU Motor1 Run
110-0080	LSU LD Power1
110-0090	LSU LD Power2
110-0100	LSU LD Power3
110-0110	LSU LD Power4

| 111-0080 | ID Sensor |
| 111-0090 | ID Sensor Check |

- **Fax**
  - NVM Read/Write : This menu changes a configuration value for fax firmware.

020-200	Pause Dial Time
020-210	Dial Pulse M/B ratio
020-220	Auto Dial Start Pause Time
020-300	Ring On Time
020-310	Ring Off Time
020-320	Ring Detection Freq
020-400	DTMF High-Freq Level
020-410	DTMF Low-Freq Level
020-420	DTMF Timing
020-500	Dial Mode

020-520	Error Rate
020-530	Dial tone detect
020-540	Loop current detect
020-550	Busy signal detect
020-700	Line Monitor Setting
020-800	Modem Speed
020-810	Fax Transmission Level
020-830	Auto Dial Timeout

  - Test Routines : This menu performs test routines for the fax.

020-012	Sngl Tone 1100Hz Ln1
020-014	Sngl Tone 1650Hz Ln1
020-015	Sngl Tone 1850Hz Ln1
020-016	Sngl Tone 2100Hz Ln1
020-020	DTMF # Line1
020-021	DTMF * Line1
020-022	DTMF 0 Line1
020-023	DTMF 1 Line1
020-024	DTMF 2 Line1
020-025	DTMF 3 Line1
020-026	DTMF 4 Line1
020-027	DTMF 5 Line1
020-028	DTMF 6 Line1
020-029	DTMF 7 Line1
020-030	DTMF 8 Line1
020-031	DTMF 9 Line1
020-040	V.21 300 bps Line1
020-041	V.27ter 2400 bps Line1
020-042	V.27ter 4800 bps Line1
020-043	V.29 7200 bps Line1

020-044	V.29 9600 bps Line1
020-045	V.17 7200 bps Line1
020-046	V.17 9600 bps Line1
020-047	V.17 12000 bps Line1
020-048	V.17 14400 bps Line1
020-049	V.34 2400 bps Line1
020-050	V.34 4800 bps Line1
020-051	V.34 7200 bps Line1
020-052	V.34 9600 bps Line1
020-053	V.34 12000 bps Line1
020-054	V.34 14400 bps Line1
020-055	V.34 16800 bps Line1
020-056	V.34 19200 bps Line1
020-057	V.34 21600 bps Line1
020-058	V.34 24000 bps Line1
020-059	V.34 26400 bps Line1
020-060	V.34 28800 bps Line1
020-061	V.34 31200 bps Line1
020-062	V.34 33600 bps Line1

e) Report

- **Shading Test**

  This function is to check quality of scanned images, especially defect in optical devices, including lens, mirror, lamp, and etc, are suspected.

- **Memory Clear**

  The function resets the system to factory default settings. This function is used to reset the system to the initial value when the product is functioning abnormally . All the values are returned to the default values, and all the information, which was set by the user, will be erased.

- **Toner Low Level**

  The function is to set up the time to inform toner low status. This function can provide user convenience for replacing the toner cartridge.

- **Counter Reset**

  This function resets the count value you select.

- **Engine Footer**

  This function is for monitoring of the engine status. If you perform this function, at printing, the setting value for engine is shown on the bottom of the printed page.

4.2. Troubleshooting

4.2.1. Procedure of checking the symptoms

Before attempting to repair the printer first obtain a detailed description of the problem from the customer.

```
Power On
    │
    ▼
OPE LED ON? ──No──▶ - No Power
    │                - Power Module error
   Yes               - Main PBA
    │
    ▼
OPE LED Green OK? ──No──▶ Red LED on / Error message is displayed. ──Yes──▶ See the troubleshooting for error code
    │
   Yes
    │
    ▼
Print (test page)
    │
    ▼
Printing quality is nomal? ──No──▶ Refer to "Solution of Image Problem"
    │
   Yes
    │
    ▼
END
```
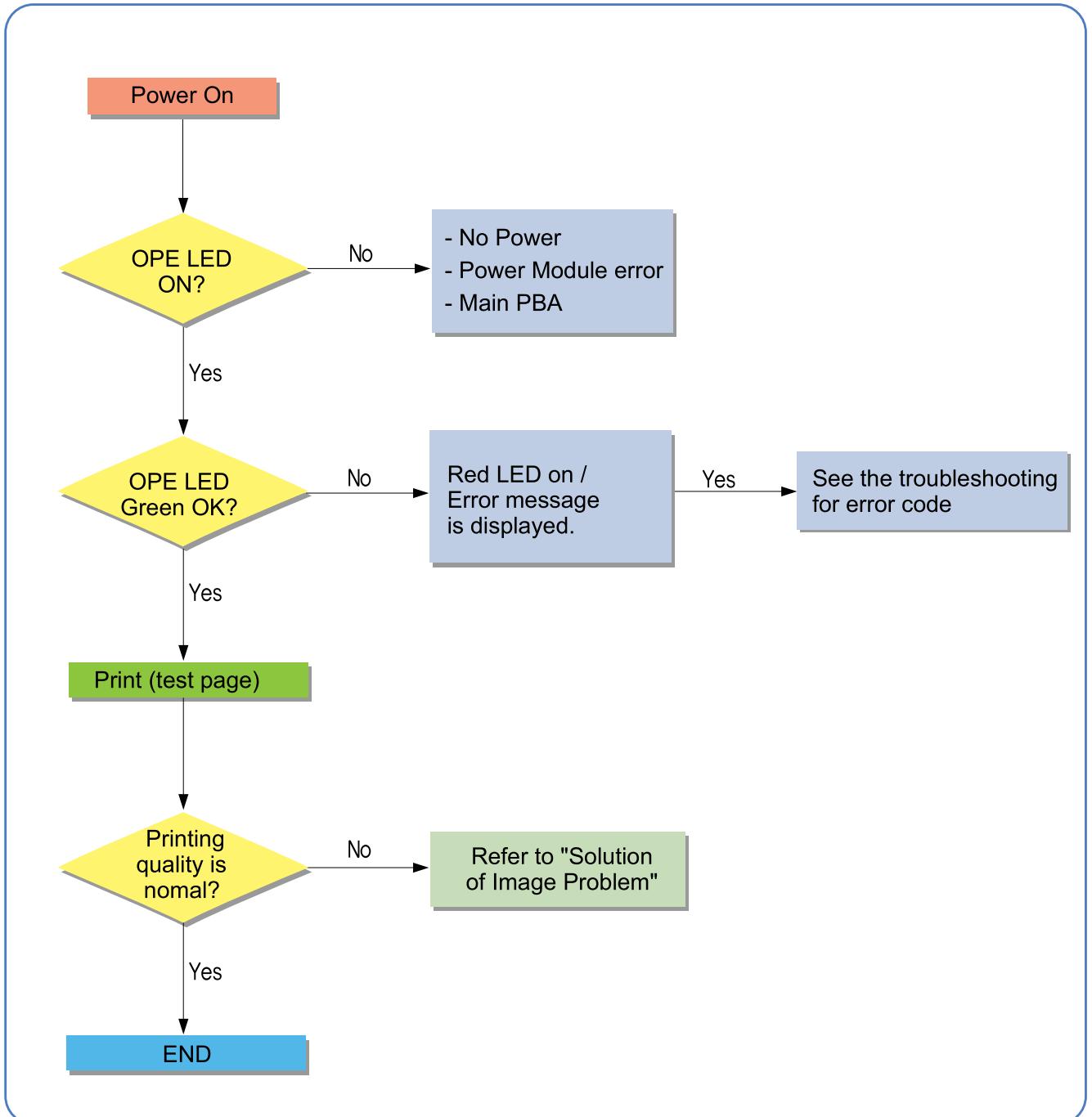
4.2.1.1.   Basic Check List

1) **Check the Power.**

   - Check that the power switch is turned on.

   - Check that the power cable is plugged into the outlet and the printer.

   - Check the voltage of the power outlet.

2) **Check the LED of Panel.**

   - Is there OPE LED ON?
     › If not check power cable, switch SMPS or Main board.

   - Is the abnormal Lamp?
     › Check the Main board and cable harness.

3) **Check the Paper Path**

   - Is there a Paper Jam?
     › Remove any paper fragments caught in the paper path.

   - Paper Jam occurs repeatedly at a specific point in the Paper Path
     › Open the fuser cover, Jam clear.
     › Dismantle the machine and carefully inspect the region where the jam occurs.
       (Especially, check if paper fragments are caught in the Fuser

4) **Print the Information Page (Configuration).**

   - Try printing a test page from a computer.
     › If there is an error check cables and driver installation.

5) **Check the Print Quality.**

   - Is there are a Print Quality Problem?
     › Refer to image quality problem section.

6) **Check consumables (toner etc.).**

   - Using the keys print the Test Pattern.
     › Expected life of various consumable parts, compare this with the figures printed and replace as required

4.2.2. Error Code and Troubleshooting

Messages appear on the control panel display to indicate the machine's status or errors. Refer to the tables below to understand the messages' and their meaning, and correct the problem, if necessary.

⚠ **NOTE**

Some messages may not appear on the display depending on the options or models.

Error Code	Error Message	Troubleshooting Page
A1-1210	Actuator Motor Failure : #A1-1210. Call for service if the problem persists.	Page 4–38
A1-2112	Actuator Motor Failure : #A1-2112. Call for service if the problem persists.	Page 4–39
A1-3612	Actuator Motor Failure : #A1-3612. Call for service if the problem persists.	Page 4–39
A1-4111	Actuator Motor Failure : #A1-4111. Call for service if the problem persists.	Page 4–40
A1-4112	Actuator Motor Failure : #A1-4112. Call for service if the problem persists.	Page 4–40
A1-4310	Actuator Motor Failure : #A1-4310. Call for service if the problem persists.	Page 4–40
A2-1210	Actuator Fan Failure : #A2-1210. Call for service if the problem persists.	Page 4–41
A2-2110	Actuator Fan Failure : #A2-2110 . Call for service if the problem persists.	Page 4–41
A3-3211	Actuator Sensor Failure #A3-3211: Call for service if the problem persists.	Page 4–41
A3-3212	Actuator Sensor Failure #A3-3212: Call for service if the problem persists.	Page 4–41
A3-3311	Actuator Sensor Failure #A3-3311: Call for service if the problem persists.	Page 4–42
A3-3312	Actuator Sensor Failure #A3-3312: Call for service if the problem persists.	Page 4–42
A3-3320	Not proper room temperature. Change room temperature.	Page 4–42
C2-2110	Prepare new yellow toner cartridge.	Page 4–43
C2-2120	Replace with new yellow toner cartridge.	Page 4–43
C2-2150	Replace with new yellow toner cartridge.	Page 4–43
C2-2320	Yellow Toner Failure: #C2-2320. Install yellow toner cartridge again.	Page 4–44
C2-2410	Install yellow toner cartridge.	Page 4–44
C2-2512	Yellow toner cartridge is not compatible. Check user's guide.	Page 4–45
C2-3110	Prepare new magenta toner cartridge.	Page 4–43
C2-3120	Replace with new magenta toner cartridge.	Page 4–43
C2-3150	Replace with new magenta toner cartridge.	Page 4–43
C2-3320	Magenta Toner Failure: #C2-3320. Install magenta toner cartridge again.	Page 4–44
C2-3410	Install magenta toner cartridge.	Page 4–44
C2-3512	Magenta toner cartridge is not compatible. Check user's guide.	Page 4–45
C2-4110	Prepare new cyan toner cartridge.	Page 4–43
C2-4120	Replace with new cyan toner cartridge.	Page 4–43
C2-4150	Replace with new cyan toner cartridge.	Page 4–43
C2-4320	Cyan Toner Failure: #C2-4320. Install cyan toner cartridge again.	Page 4–44
C2-4410	Install cyan toner cartridge.	Page 4–44
C2-4512	Cyan toner cartridge is not compatible. Check user's guide.	Page 4–45
C2-5110	Prepare new black toner cartridge.	Page 4–43
C2-5120	Replace with new black toner cartridge.	Page 4–43

Error Code	Error Message	Troubleshooting Page
C2-5150	Replace with new toner cartridge.Replace with black new toner cartridge.	Page 4–43
C2-5320	Black Toner Failure: #C2-5320. Install black toner cartridge again.	Page 4–44
C2-5410	Install black toner cartridge.	Page 4–44
C2-5512	Black toner cartridge is not compatible. Check user's guide.	Page 4–45
C5-1110	Prepare new transfer belt unit.	Page 4–45
C5-1120	Replace new transfer belt unit.	Page 4–45
C5-1310	Install image transfer belt unit.	Page 4–45
C5-1410	Image transfer belt unit is not compatible. Check users guide.	Page 4–46
C5-1710	Sensor Failure: #C5-1710. Turn off then on.	Page 4–46
C6-1110	Prepare new fuser unit.	Page 4–46
C6-1120	Replace with new fuser unit.	Page 4–46
C7-1110	Waste toner container is almost full. Order new one.	Page 4–46
C7-1311	Waste toner containrt is not installed. Install it.	Page 4–47
C9-1112	Replace with new Tray1 pickup roller.	Page 4–47
C9-1116	End of life, Replace with new Tray1 retard roller.	Page 4–47
M1-1110	Paper jam in tray 1.	Page 4–48
M1-5112	Paper is empty in tray 1. Load paper.	Page 4–48
M2-1110	Paper jam inside of machine.	Page 4–49
M2-1116	Paper jam or empty in tray.	Page 4–49
M3-1110	Paper jam in exit area	Page 4–50
M3-2130	Too much paper in output bin tray. Remove printed paper	Page 4–51
S2-4120	Door is open. Close it.	Page 4–52
S3-3121	Scanner locked or another problem occurred.(No Switch Case)Scanner is locked.	Page 4–52
S4-2111	Fax Memory is almost full. Print or remove received fax Job	Page 4–53
S4-2112	Fax memory is full. Print or remove received fax Job	Page 4–53
S4-3111	Fax System Failure: #S4-3111. Install fax modem card again..	Page 4–53
S5-3110	UI System Failure: #S5-3110. Call for service	Page 4–53
S6-3123	This IP address conflicts with that of other system. Check it.	Page 4–54
S6-3128	802.1x authentication failed. Please Contact the System Administrator	Page 4–54
U1-2132	Fuser Unit Failure #U1-2132: Turn off then on.	Page 4–54
U1-2315	Fuser Unit Failure: #U1-2315.Turn off then on.	Page 4–54
U1-2320	Fuser Unit Failure #U1-2320: Turn off then on.	Page 4–54
U1-2330	Fuser Unit Failure #U1-2330: Turn off then on.	Page 4–54
U1-2334	Fuser Unit Failure: #U1-2334. Turn off then on	Page 4–54
U1-2340	Fuser Unit Failure : #U1-2340.Turn off then on.	Page 4–54
U1-234H	Fuser Unit Failure: #U1-234H. Please turn off then on.	Page 4–54
U2-6122	LSU Failure: #U2-6122. Please turn off then on.	Page 4–55
U2-6142	LSU Failure: #U2-6142. Please turn off then on.	Page 4–55
U3-3113	Original paper jam in front of scanner.	Page 4–56
U3-3114	Original paper jam in front of scanner.	Page 4–56

| Error Code	Error Message	Troubleshooting Page
U3-3313	Original paper jam inside of scanner.	Page 4–56
U3-3314	Original paper jam inside of scanner.	Page 4–56
U3-4110	Door of scanner is open.	Page 4–56

► **Error Code**

A1-1210

► **Error message**

Actuator Motor Failure : #A1-1210. Call for service if the problem persists.

► **Symptom**

The fuser motor does not operate. / The fuser motor is operating but is recognized as stop status.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Remove the rear and right cover.

3) Check if there are any obstacles or paper around the fuser unit.

4) Check if the connection between main board and fuser motor are correct.

5) If the connection is OK, replace the fuser motor.
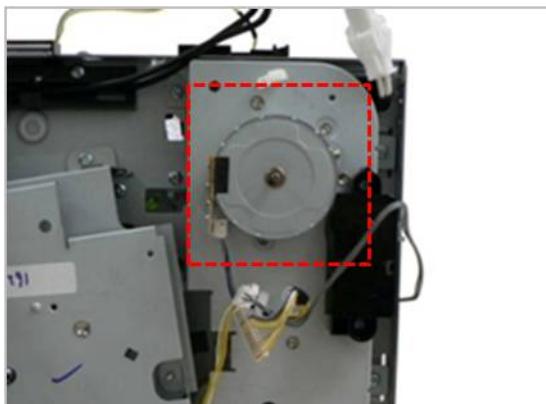
6) If the problem persists, replace the main board.

► **Error Code**

A1-2112

A1-3612

► **Error message**

Actuator Motor Failure : #A1-2112. Call for service if the problem persists.

Actuator Motor Failure : #A1-3612. Call for service if the problem persists.

► **Symptom**

The OPC/Deve motor does not operate. / The OPC/Deve motor is operating but is recognized as stop status.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Remove the right cover.

3) Check if the connection between main board and OPC/Deve motor are correct.

4) If the connection is OK, replace the OPC/Deve motor.
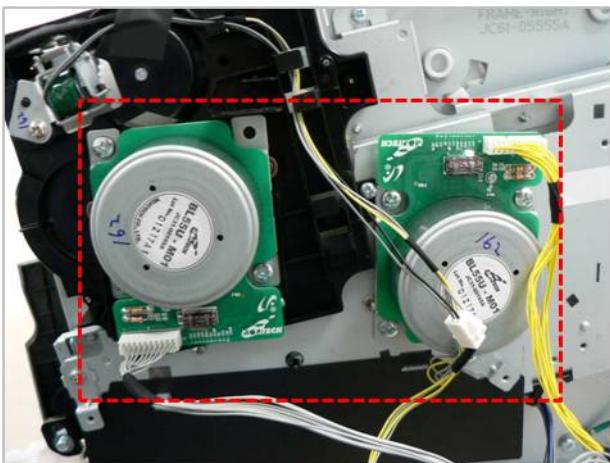
5) If the problem persists, replace the main board.

► **Error Code**

A1-4111

A1-4112

► **Error message**

Actuator Motor Failure : #A1-3612. Call for service if the problem persists.

► **Symptom**

The transfer roller can't move the engage/disengage position.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Remove the right cover.

3) Check if the connection between main board and Feed drive unit are correct.

4) If the connection is OK, replace the step motor of the Feed drive unit.

5) If the problem persists, replace the main board.

► **Error Code**

A1-4310

► **Error message**

Actuator Motor Failure : #A1-4310. Call for service if the problem persists.

► **Symptom**

The motor for ITB unit does not operate normally.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Remove the right cover.

3) Check if the connection between main board and the main drive unit are correct.

4) If the connection is OK, replace the main drive unit.
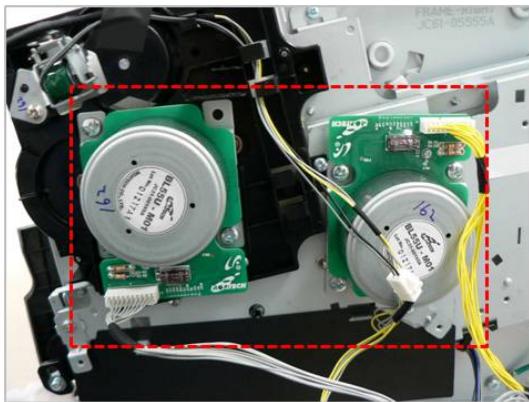
5) If the problem persists, replace the main board.

► **Error Code**

A2-1210

A2-2110

► **Error message**

Actuator Fan Failure : #A2-1210. Call for service if the problem persists.

Actuator Fan Failure : #A2-2110. Call for service if the problem persists.

► **Symptom**

The SMPS fan or Fuser fan does no operate normally.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Remove the right cover.

3) Check if the connection between main board and the related fan is correct.

4) If the connection is OK, replace the defective fan.

► **Error Code**

A3–3211

A3–3212

► **Error message**

Actuator Sensor Failure #A3-3211: Call for service if the problem persists.

Actuator Sensor Failure #A3-3212: Call for service if the problem persists.

► **Symptom**

The inner temperature sensor is defective.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Enter the tech mode. Check the temperature sensor output.

3) If the sensor is defective, replace it.

4) If the temperature sensor is OK, replace the main board.

► **Error Code**

A3–3311

A3–3312

► **Error message**

Actuator Sensor Failure #A3-3311: Call for service if the problem persists.

Actuator Sensor Failure #A3-3312: Call for service if the problem persists.

► **Symptom**

The outer temperature sensor is defective.

► **Troubleshooting method**

1) Turn the machine off then on. If the error persists, turn the machine off again.

2) Enter the tech mode. Check the temperature sensor output.

3) If the sensor is defective, replace it.
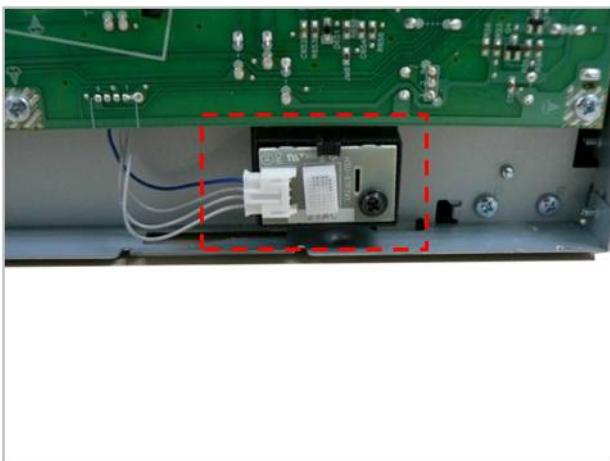
4) If the temperature sensor is OK, replace the main board.

► **Error Code**

A3–3320

► **Error message**

Not proper room temperature. Change room temperature.

► **Symptom**

The value of the outer temperature sensor is out of normal area.

► **Troubleshooting method**

1) Check if the machine is installed in the proper area.

2) If the temperature sensor is defective, replace it.

► **Error Code**

C2-2110

C2-3110

C2-4110

C2-5110

► **Error message**

Prepare new yellow toner cartridge.

Prepare new magenta toner cartridge.

Prepare new cyan toner cartridge.

Prepare new black toner cartridge.

► **Symptom**

The remaining toner cartridge is less than 10%

► **Troubleshooting method**

1) Print the supply information report. Check the life remaining of the toner cartridge.

2) If its life is at the end, turn the machine off and replace the toner cartridge with new one.

► **Error Code**

C2-2120

C2-2150

C2-3120

C2-3150

C2-4120

C2-4150

C2-5120

C2-5150

► **Error message**

Replace with new yellow toner cartridge.

Replace with new magenta toner cartridge.

Replace with new cyan toner cartridge.

Replace with new black toner cartridge.

► **Symptom**

The toner cartridge is at the end of its life.

► **Troubleshooting method**

1) Print the supply information report. Check the life remaining of the toner cartridge.

2) If its life is at the end, turn the machine off and replace the toner cartridge with new one.

► **Error Code**

C2-2320

C2-2410

C2-3320

C2-3410

C2-4320

C2-4410

C2-5320

C2-5410

► **Error message**

Yellow Toner Failure: #C2-2320. Install yellow toner cartridge again.

Install yellow toner cartridge.

Magenta Toner Failure: #C2-3320. Install magenta toner cartridge again.

Install magenta toner cartridge.

Cyan Toner Failure: #C2-4320. Install cyan toner cartridge again.

Install cyan toner cartridge.

Black Toner Failure: #C2-5320. Install black toner cartridge again.

Install black toner cartridge.

► **Symptom**

The toner cartridge is not installed or the CRUM has some problem.

► **Troubleshooting method**

1) Check if the toner cartridge is installed properly. Turn the machine off then on.

2) If the error message is not disappear, remove the toner cartridge. Thoroughly roll the cartridge five or six times to distribute the toner evenly inside the cartridge. And reinstall the toner cartridge.

3) If the problem persists, check that the CRUM contact area is contaminated. Clean it.

4) If the problem persists, replace the toner cartridge with new one.

► **Error Code**

C2-2512

C2-3512

C2-4512

C2-5512

► **Error message**

Yellow toner cartridge is not compatible. Check user's guide.

Magenta toner cartridge is not compatible. Check user's guide.

Cyan toner cartridge is not compatible. Check user's guide.

Black toner cartridge is not compatible. Check user's guide.

► **Symptom**

Toner cartridge is not compatible.

► **Troubleshooting method**

1) Print the supply information report. Check information of the toner cartridge.

2) If the toner cartridge is not a Samsung genuine toner cartridge, replace with new one.

► **Error Code**

C5-1110

C5-1120

► **Error message**

Prepare new transfer belt unit.

Replace new transfer belt unit.

► **Symptom**

The ITB Unit is at the end of its life.

► **Troubleshooting method**

1) Print the supply information report. Check the life remaining of the ITB unit.

2) If its life is at the end, turn the machine off and replace the ITB unit with new one.

► **Error Code**

C5-1310

► **Error message**

Install image transfer belt unit.

► **Symptom**

The ITB Unit is not installed properly.

► **Troubleshooting method**

1) Turn the machine off. Remove and reinstall the ITB unit.

2) Turn the machine on. If the problem persists, replace the ITB unit.

► **Error Code**

C5-1410

► **Error message**

Image transfer belt unit is not compatible. Check users guide.

► **Symptom**

The ITB unit is not compatible.

► **Troubleshooting method**

1) Print the supply information report. Check information of the ITB Unit.

2) If the toner cartridge is not a Samsung genuine ITB Unit, replace with new one.

► **Error Code**

C5-1710

► **Error message**

Sensor Failure: #C5-1710. Turn off then on.

► **Symptom**

The ITB home position sensor has the problem.

► **Troubleshooting method**

1) Turn the machine off. Replace the ITB Unit.

► **Error Code**

C6-1110
C6-1120

► **Error message**

Prepare new fuser unit.
Replace with new fuser unit.

► **Symptom**

The fuser unit is at the end of its life.

► **Troubleshooting method**

1) Print the supply information report. Check the life remaining of the fuser unit.

2) If its life is at the end, turn the machine off and replace the fuser unit with new one.

► **Error Code**

C7-1110

► **Error message**

Waste toner container is almost full. Order new one.

► **Symptom**

The waste toner container is at the end of its life.

► **Troubleshooting method**

1) Print the supply information report. Check the life remaining of the waste toner container.

2) If its life is at the end, turn the machine off and replace the waste toner container with new one.

► **Error Code**

C7-1311

► **Error message**

Waste toner container is not installed. Install it.

► **Symptom**

The waste toner container is not installed

► **Troubleshooting method**

1) Check if the waste toner container is installed properly.

2) Remove and reinstall the waste toner container.

► **Error Code**

C9-1112

C9-1116

► **Error message**

Replace with new Tray1 pickup roller.

End of life, Replace with new Tray1 retard roller.

► **Symptom**

The pick up roller or reverse roller is at the end of its life.

► **Troubleshooting method**

1) Turn the machine off.

2) Replace the pick up roller Assy and reverse roller Assy.

► **Error Code**

M1–1110

► **Error message**

Paper jam in tray 1.

► **Symptom**

The jammed paper has occurred in the tray1.

► **Troubleshooting method**

1) Remove the jammed paper.

2) If the jammed paper occurs continually, check the followings.

    a) Check if the pick up/forward/reverse roller are worn out or contaminated. Clean the contaminated part or replace it.
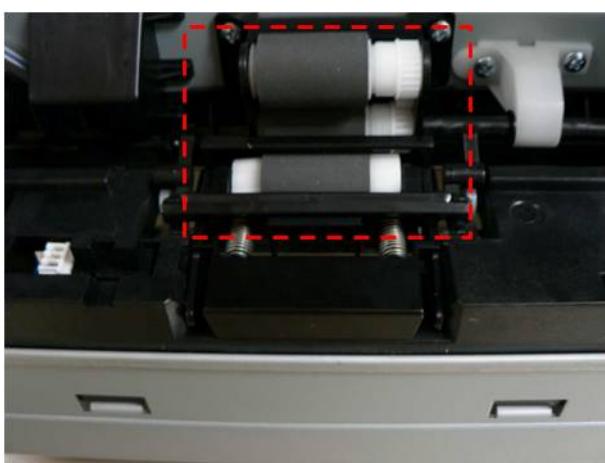
    b) Check if the actuator is assembled correctly.

3) If the pick up clutch is defective, replace it.

► **Error Code**

M1–5112

► **Error message**

Paper is empty in tray 1. Load paper.

► **Symptom**

Paper is empty in Tray1

► **Troubleshooting method**

1) Take off the cassette. If there is no paper on the tray, load the paper.

2) If the problem persists, check the following.

    a) Check if the paper empty sensor is contaminated or defective. Replace it.

► **Error Code**

M2–1110

M2–1116

► **Error message**

Paper jam inside of machine.

Paper jam or empty in tray.

► **Symptom**

The jammed paper has occurred inside machine.

► **Troubleshooting method**

1) Remove the jammed paper.

2) If the problem persists, check the following.

    a) Check if there is any obstacles or paper on the paper path. Remove it.

    b) Check if the FRAME-RETARD unit is assembled properly.
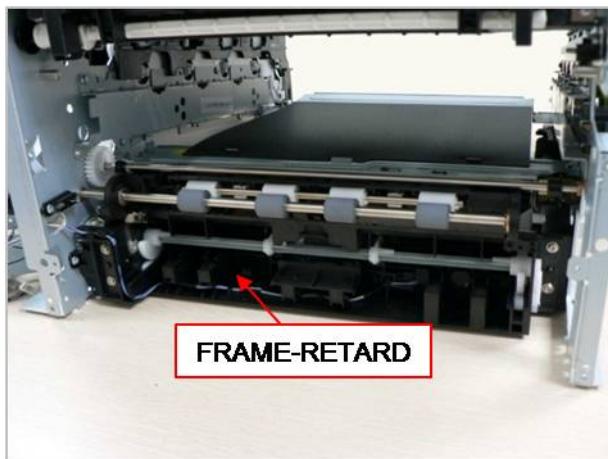
    c) Check if the pick up clutch, regi clutch, feed drive unit are working normally. If there is a defective part, replace it.
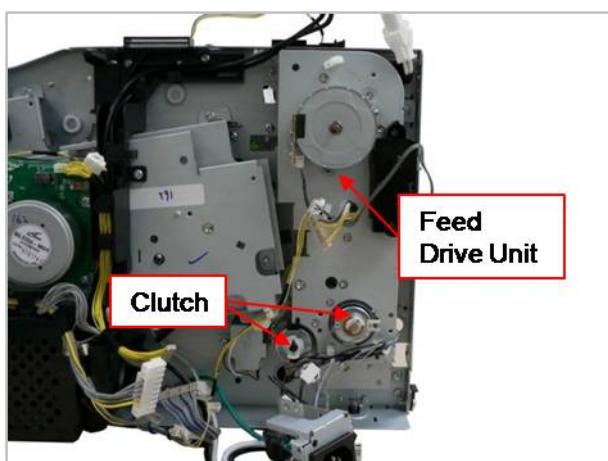
► **Error Code**

M3–1110

► **Error message**

Paper jam in exit area.

► **Symptom**

The jammed paper has occurred in the exit area.

► **Troubleshooting method**

1) Remove the jammed paper.

2) If the problem persists, check the following.

    a) Check if there is any obstacles or paper on the paper path. Remove it.

    b) Check if the fuser unit is assembled properly. If the fuser unit is defective, replace it.

    c) Check if the FRAME-EXIT unit has any defective parts. Replace the FRAME-EXIT.
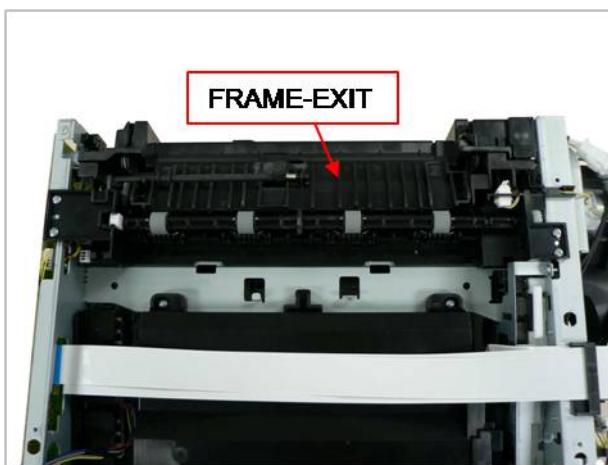
► **Error Code**

M3–2130

► **Error message**

Too much paper in output bin tray. Remove printed paper

► **Symptom**

The machine detected that the output tray has got full or the bin-full sensor is defective.

► **Troubleshooting method**

1) Remove the paper on the output tray.

2) Check if the Bin-full Sensor connector is connected properly. Reconnect it.

3) If the sensor is defective, replace it.
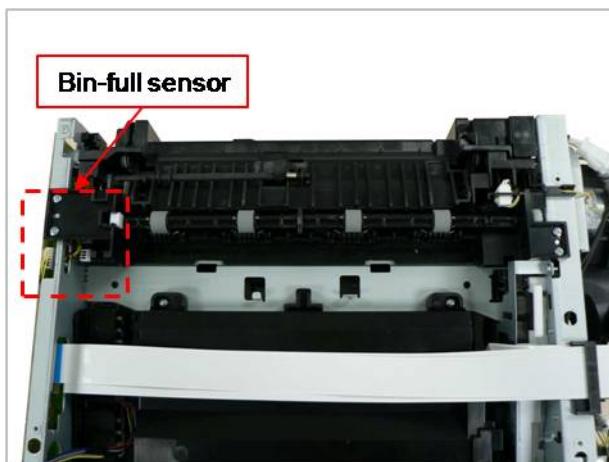
► **Error Code**

► **Error Code**

S2–4120

► **Error message**

Door is open. Close it.

► **Symptom**

Door is open or the cover open switch is defective.

► **Troubleshooting method**

1) Check if the front cover is closed perfectly.

2) If the error persists, check that the cover-open sensor is working normally. If it is defective, replace it.
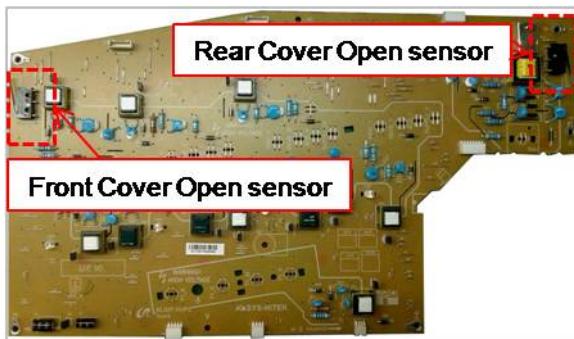
► **Error Code**

S3–3121

► **Error message**

Scanner is locked.

► **Symptom**

Scanner lock error has occurred. CIS does not move.

► **Troubleshooting method**

1) Check if the CIS unit is moving when power on.

2) Check if the at cable is connected to the CIS unit properly. Re-connect or replace the cable.

3) If the CIS is defective, replace it.

4) Check if there is any defective part in the scanner unit. (Gear, Belt, Motor etc.)

5) If the problem persists, replace the main board.

► **Error Code**

S4–2111

S4–2112

► **Error message**

Fax Memory is almost full. Print or remove received fax Job.

Fax memory is full. Print or remove received fax Job.

► **Symptom**

The fax memory is almost full.

► **Troubleshooting method**

1) Print or remove the received fax job.

► **Error Code**

S4–3111

► **Error message**

Fax System Failure: #S4-3111. Install fax modem card again.

► **Symptom**

The fax board is not installed or defective.

► **Troubleshooting method**

1) Check if the fax board is installed properly.

2) If the fax board is defective, replace it.

3) If the problem persists, replace the main board.

► **Error Code**

S5–3110

► **Error message**

UI System Failure: #S5-3110. Call for service.

► **Symptom**

The communication error between main board and OPE board has occurred.

► **Troubleshooting method**

1) Turn the machine off then on.

2) If the problem persists, check the followings.

a) Check the connection between main board and OPE board. Reconnect the harness.

b) If the connection is OK, replace the main board or OPE board.

► **Error Code**

S6–3123

S6–3128

► **Error message**

This IP address conflicts with that of other system. Check it.

802.1x authentication failed. Please Contact the System Administrator.

► **Symptom**

IP address conflicts with that of other system.

► **Troubleshooting method**

1) Change the machine's IP address.

2) Check the setting-up for 802.1x confirmation server.

► **Error Code**

U1–2132

U1–2315

U1–2320

U1–2330

U1–2334

U1–2340

U1–234H

► **Error message**

Fuser Unit Failure #U1-2132: Turn off then on.

Fuser Unit Failure #U1-2315: Turn off then on.

Fuser Unit Failure #U1-2320: Turn off then on.

Fuser Unit Failure #U1-2330: Turn off then on.

Fuser Unit Failure #U1-2334: Turn off then on.

Fuser Unit Failure #U1-2340: Turn off then on.

Fuser Unit Failure #U1-234H: Turn off then on.

► **Symptom**

The temperature control of fuser unit is abnormal.

► **Troubleshooting method**

1) Check if the input voltage is normal.

2) Turn the machine off. Remove and reinstall the fuser unit. Be careful when connecting the AC-connector and Thermistor connector.

3) Turn the machine on. Is the error message is disappeared?

4) Check the followings. If the fuser unit has any problem, replace it.

    a) Check if the fuser connector is connected properly.

    b) Check if the halogen lamp voltage is normal.

    c) Check if the thermistor is contaminated or twisted.

5) If the problem persists, replace the main board or SMPS board.

► **Error Code**

U2-6122

U2-6142

► **Error message**

LSU Failure: #U2-6122. Please turn off then on.

LSU Failure: #U2-6142. Please turn off then on.

► **Symptom**

LSU Motor does not work normally. / LSU Hsync signal is abnormal.

► **Troubleshooting method**

1) Check if the LSU harness on the main board is connected properly.

2) If it is OK, check that the LSU harness on LSU board is connected properly.

3) Check if the LSU harness is defective.

4) If the problem persists, replace the LSU.
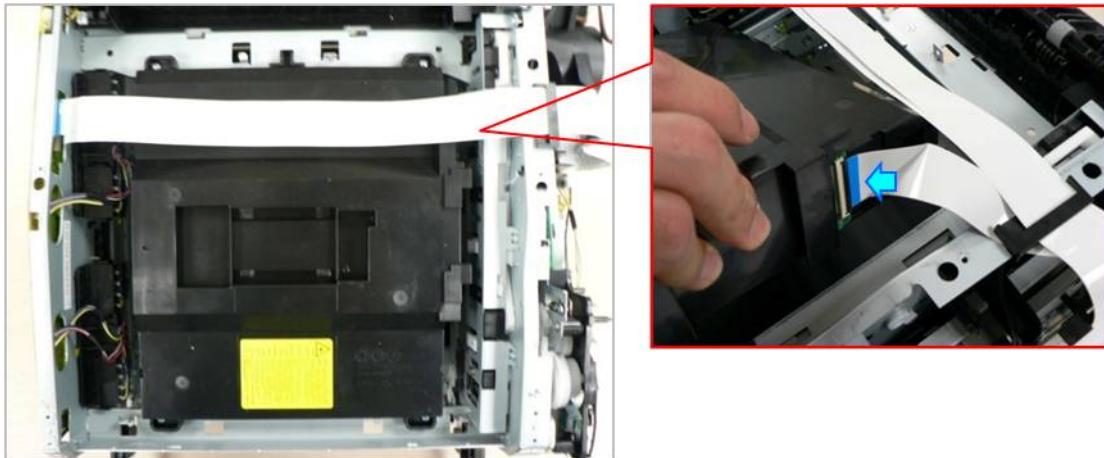
5) If the problem persists after replacing LSU, replace the main board.

► **Error Code**

U3-3113

U3-3114

U3-3313

U3-3314

► **Error message**

Original paper jam in front of scanner.

Original paper jam inside of scanner.

► **Symptom**

A document jam was detected in the ADF unit.

► **Troubleshooting method**

1) Remove the jammed paper from ADF unit.

2) If the error persists, turn the machine off then on.

3) If the document jam occurs continually, open the ADF cover-top. Check if the ADF pick up roller is contaminated or worn out. Clean or replace it.

4) If the pick up roller is OK, check the followings.
   a) Check if the ADF motor is working normally.
   b) Check if the connector on the ADF joint board is connected correctly.

5) If the problem persists, replace the ADF unit.

► **Error Code**

U3-4110

► **Error message**

Door of scanner is open.

► **Symptom**

ADF or ADF top cover is opened.

► **Troubleshooting method**

1) Close the ADF unit.

2) Close the ADF top cover.

4.2.3. Image quality problems

1) Vertical Black Line and Band

   • Description : Straight thin black vertical line occurs in the printed image.
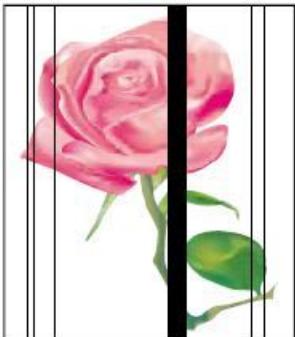
| Cause and Check Point	Solution
Check if the surface of the charge roller is scratched or contaminated.	Replace the toner cartridge and test again.
Check if there are grooves on the circumference of the OPC drum.	Replace the toner cartridge and test again.
Check if the cleaning blade is damaged	Replace the toner cartridge and test again.
Check if paper transfer belt is damaged or contaminated.	Replace the ITB unit and test again.

2) Vertical White Line

   • Description : White vertical voids in the image.

Cause and Check Point	Solution
Check if the LSU window or internal lenses of LSU is contaminated.	Clean the LSU window with recommended cleaner(IPA). Clean the window with a clean cotton swab. If dirt is inside the LSU, replace the LSU.
Check if there are scratches on the circumference of the OPC drum.	Replace the toner cartridge and test again.
Check if there are scratches on the circumference of the developing roller.	Replace the toner cartridge and test again.
Check if paper transfer belt is damaged or contaminated.	Replace the ITB unit and test again.

3) Contamination on back of page

- Description : The back of the page is contaminated.
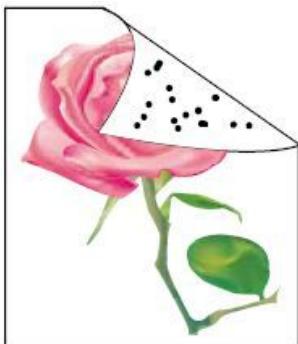
| Cause and Check Point	Solution
Dirty registration roller, pressure roller, feed roller, etc. Any dirty rollers through the path of the paper.	Identify the roller which may cause the problem by comparing the period of the contamination on images with the size of rollers. Clean any dirt from the roller or replace the dirty roller.
Check if the transfer roller is damaged or contaminated.	Replace the transfer roller and test again.
Check if paper transfer belt is damaged or contaminated.	Replace the ITB unit and test again.

4) Dark or Black image

- Description : The black page is printed out.

Cause and Check Point	Solution
No charging voltage in the HVPS.	Check the connecting state between the Main PBA and HVPS. Reconnect the harness.
Poor contact between toner cartridge and set contacts.	Clean the contacts as necessary. Replace any deformed or damaged contacts.
HVPS is defective.	Replace the HVPS.

5) Blank Page

- Description : Blank page is printed.
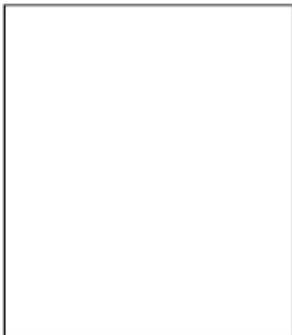
| Cause and Check Point	Solution
Bad contacts from OPC drum and/or toner cartridge to ground.	Check the terminal of Ground-OPC.
Not working the LSU.	Check the connector of LSU.
Not working the developing bias voltage on HVPS.	Replace the HVPS.

6) Uneven Density

- Description : Print Density is uneven between left and right.

Cause and Check Point	Solution
The life of the Toner Cartridge has expired.	Replace the toner cartridge.
The pressure force in the left and right springs of the ITB unit is not even.	Replace the ITB Unit

7) Horizontal Bands

- Description : Dark or white horizontal stripes appear in the page. (These may occur at regular intervals down the page.)
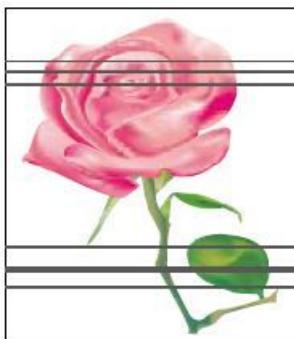
Cause and Check Point	Solution
The developing roller, OPC drum or other rollers in the toner cartridge may be contaminated or deformed.	Replace the toner cartridge.
Bad contacts of HV terminals of the toner cartridge with high voltage terminals from printer set.	Clean all HV terminals in the cartridge and on the set frame. Ensure all toner or paper dust, particles are removed.

8) Poor Fusing

- Description : Toner is not properly fixed on paper.

Cause and Check Point	Solution
The media doesn't meet specification	Use the proper media in specifications.
Fuser is defective	Replace the fuser unit.

4.2.4.   Other errors

1) Multi-feeding

- Description : Multiple sheet of paper are fed at once.

| Check and cause	Solution
Pick clutch or Regi clutch does not work properly.	Replace the defective clutch if necessary.
Pick up/ Forward / Retard roller is worn out or contaminated.	Clean or replace the defective roller.
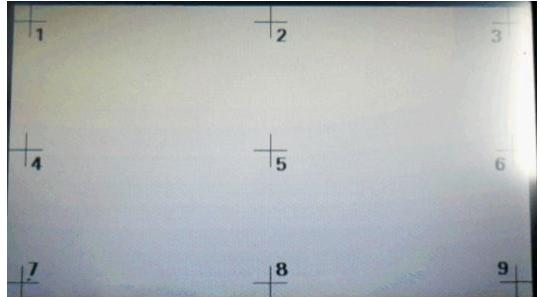
2) No-Power

- Description : When system power is turned on, LED and LCD on the operator panel do not come on.

Check and cause	Solution
The connection between main board and OPE board is bad.	Reconnect or replace the harness.
HVPS/SMPS output is abnormal.	Replace the HVPS/SMPS board.

3) Calibrating the touch screen (Touch screen model only)

- Description : Touch screen does not operate properly.

Check and cause	Solution
The linearity value for touch panel has changed due to using a machine long hours or surroundings.	1) Turn off the machine. 2) While pressing the number 0 on numeric keys, turn the machine on. Wait until calibration screen appears. 3) Press centre of mark + following order 1~9. Use your finger. Perform 2 times. 4) If there is no problem, "Complete" will appear on LCD and reboot the machine. When making a mistake, start again from the step 1.